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ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1980

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LABOR AREA RESEARCH PUBLICATION

Job Market Research Service ● Massachusetts Division of Employment Security

ANNUAL PLANNING INFORMATION REPORT

FISCAL YEAR 1980

SPRINGFIELD-CHICOPEE-HOLYOKE, MASSACHUSETTS LABOR MARKET AREA

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I. Highlights and Conclusions

The national recession of 1975 had adversely affected just about every aspect of the Springfield-Chicopee-Holyoke Labor Market Area. Only a sizeable increase in government-sponsored employment kept nonfarm payrolls from dropping even further. Improvement in the national economy began in the last half of 1975. It was during this period that recovery was first visible in the local economy. Local recovery continued to the present. By fiscal year 1978, the unemployment rate declined to 5.6 percent from a high of 10.5 percent in fiscal year 1975. A boom in consumer spending starting in late 1975 coupled with an upsurge in capital investment in 1978 spurred the recovery. Other factors which contributed to progress in the local economy were its excellent industrial base, and the policy of encouraging growth of existing industries by local public and private agencies working together. Development of industrial parks, shopping centers, better housing and roads are just a few examples of this combined effort.

Spiralling inflation is taking its toll of consumer spending, and interest rates at a record high are slowing down capital spending. The expected recession in early fiscal year 1980 appears imminent. However, there will be some growth in total nonagricultural employment in 1980 but not enough to take care of the increases in the labor force due to new entrants and reentrants into the labor market.

A recent survey of manufacturing and nonmanufacturing industries in the labor market area revealed that there should be little or no problems for skilled workers to obtain jobs in 1980, even though much of the hiring will be for replacement purposes rather than new growth. The unemployment rate is expected to rise to six percent in fiscal year 1980 and will be considered substantial unemployment.

However, the percentage of the total unemployed made up of unskilled workers in need of employment and training services will increase considerably.

II. Description of Area

A. Definition of Area

Area Definition

Cities and Towns: The Labor Market Area is comprised of five cities and twenty-eight towns. The five cities are Springfield, Chicopee, Holyoke, Westfield all located in Hampden County, and Northampton in Hampshire County. The twenty-eight towns are Agawam, Brimfield, East Longmeadow, Granville, Hampden, Longmeadow, Ludlow, Monson, Montgomery, Palmer, Russell, Southwick, Wales, West Springfield, and Wilbraham in Hampden County, Amherst, Belchertown, Chesterfield, Easthampton, Granby, Hadley, Hatfield, Pelham, Southampton, South Hadley, Westhampton, and Williamsburg in Hampshire County; Warren in Worcester County.

Boundaries: Northwest: Chesterfield, Westhampton in Hampshire County.

Southwest: Southampton, Montgomery, Russell and Granville in Hampden County.

Northeast: Pelham, Belchertown in Hampshire County.

Southeast: Warren in Worcester County; Palmer, Brimfield, and Wales in Hampden County.

North: Amherst, Hadley, Hatfield and Williamsburg in Hampshire County.

South: Southwick, Agawam, Longmeadow, East Longmeadow, Hampden and Monson in Hampden County (all along the Connecticut border).

Hampden County Manpower Consortium
The CETA agency for Hampden County.

Hampshire County Manpower Consortium.
The CETA agency for Hampshire County.

Land Area: The Springfield-Chicopee-Holyoke Labor Market Area based on the newly defined geographical boundaries has a total of 870.14 square miles of land area. The city of Westfield with a land area of 46.85 square miles is the largest among the five cities.

Other Geographical Features: The area has several mountain ranges of which the most famous are Mount Tom and The Berkshire Hills. The Labor Market Area has a very large river basin, known as the Lower Pioneer Valley enclosed on both sides by scenic mountains which constitutes an extremely important natural resource area of the state. The Connecticut River, the largest in New England, flows through the heart of the area from north to south, while two of the largest tributaries, the Chicopee Westfield Rivers, flow through the eastern and western section of the Labor Market Area. The area has a number of reservoirs, lakes, and ponds and is rated as having an undeveloped tourism potential.

Civilian Labor Force	1978 Annual Average was 274,100
Nonfarm Wage and Salary Employment	1978 Annual Average of 225,300 was up 6,900 from 1977 Annual Average of 218,400.
Ratio of Manufacturing to Nonfarm Wage and Salary Employment	1978 Annual Average in manufacturing of 66,200 was 29.4 percent of all nonfarm wage and salary employment and is an indication of the importance of manufacturing to the economy of the area.
Most Important Industries in Terms of Employment	Wholesale and retail trade; government, services; finance, insurance and real estate; fabricated metals; transportation, communication and utilities; paper; nonelectrical machinery; printing; contract construction; chemicals and transportation equipment.
Unemployment	1978 Annual Average 5.3 percent of the labor force compared to 6.0 percent for the United States.

B. Population and Labor Force Characteristics and Trends

A breakout of population and labor force in this labor market area by age, race, and sex, using data from the Lawrence-Berkeley Laboratory of the University of California derived from the 1970 Census, can be found in Table I. In recent years, a downward trend in population has been firmly established in this area. The population, which was estimated at 583,031 in the April 1970 census, apparently peaked in mid-1975 (State Census) at 597,400, and dropped to 589,400 (State estimate) in mid-1977. The rate of decline in population appears to be slowing down some but should reach an estimated 588,295 by 1980

Table I shows an estimated average unemployment rate of 6.0 percent for fiscal year 1980 in the labor market area, a considerable drop from the 10.5 percent in the recessionary fiscal year 1975 (see Table IV for comparative rates). The 6.0 percent is dependent upon the slowing down in growth in the general economy in fiscal year 1980. Throughout the 1970's, the participation rate of women in the labor force will probably continue to increase for some time to come. Table I also demonstrates the high rate of unemployment which prevails amongst youths (16-24) in the area. This is especially noticeable among blacks and Spanish speaking youth who are constantly migrating into the area and are facing many barriers to employment.

Table I

Population and Labor Force Composition Projections
Fiscal Year 1980
Springfield-Chicopee-Holyoke LMA

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
TOTAL POPULATION	588,295					
16 Years & Older	437,006	286,675	269,475	17,200	6.0	65.6
White Male	189,693	151,211	144,111	7,100	4.7	79.9
16-17	11,684	7,453	6,884	569	7.6	63.8
18-19	11,684	7,312	6,648	664	9.1	62.6
20-24	28,398	23,589	22,105	1,484	6.3	83.1
25-34	32,281	31,635	30,229	1,406	4.4	98.0
35-44	25,744	25,229	24,428	801	3.2	98.0
45-64	55,141	50,424	48,763	1,717	3.4	91.5
65 +	24,761	5,510	5,054	465	8.4	22.3
White Female	220,290	118,074	110,490	7,604	6.4	53.6
16-17	11,554	8,067	7,177	890	11.0	69.8
18-19	11,554	6,273	5,851	422	6.7	54.3
20-24	30,225	20,709	19,576	1,133	5.5	68.5
25-34	37,857	22,903	21,204	1.199	5.2	60.8
35-44	27,319	18,421	17,516	925	5.0	67.5
45-64	61,862	38,206	35,516	2,690	7.0	61.8
65 +	39,919	3,495	3,150	345	9.9	8.7
Nonwhite Male	11,691	9,563	8,287	1,276	13.3	81.8
16-17	896	258	150	108	41.9	28.8
18-19	896	506	384	122	24.1	56.5
20-24	2,322	2,230	1,881	349	15.7	96.0
25-34	2,834	2,777	2,507	270	9.7	98.0
35-44	1,662	1,608	1,424	184	11.4	96.8
45-64	2,477	2,048	1,818	230	11.2	82.7
65 +	604	135	122	13	9.6	22.3

Table IA

Population and Labor Force Composition Projections
Fiscal Year 1980
Springfield-Chicopee-Holyoke LMA

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
Nonwhite Female	15,332	7,826	6,606	1,220	15.6	51.0
16-17	954	241	172	69	28.6	25.3
18-19	954	456	366	90	19.7	47.8
20-24	2,343	1,281	953	328	25.6	54.7
25-34	4,199	2,480	2,154	326	13.2	59.1
35-44	2,434	1,607	1,293	314	19.5	66.0
45-64	3,324	1,612	1,531	81	5.0	48.5
65 +	1,124	149	137	12	8.0	13.3
Black Male	10,834	8,886	7,664	1,222	13.8	82.0
16-17	850	236	133	103	43.6	27.7
18-19	850	486	375	111	22.8	57.1
20-24	2,153	2,083	1,749	334	16.0	96.7
25-34	2,661	2,607	2,348	259	9.9	98.0
35-44	1,478	1,449	1,273	176	12.2	98.0
45-64	2,292	1,898	1,671	227	10.0	82.8
65 +	549	127	115	12	9.4	23.4
Black Female	14,240	7,331	6,121	1,210	16.5	51.5
16-17	911	233	165	68	29.2	25.6
18-19	911	442	353	89	20.1	48.5
20-24	2,275	1,227	902	325	26.5	53.9
25-34	3,960	2,402	2,079	323	13.5	60.7
35-44	2,147	1,432	1.119	313	21.9	66.7
45-64	2,993	1,463	1,383	80	5.5	48.9
65 +	1,043	132	120	12	9.1	12.6

Table II

Population and Labor Force Composition Projections
Fiscal Year 1980
Hampden County (CETA)

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
TOTAL POPULATION	459,252					
16 Years & Older	340,343	226,331	212,298	14,033	6.2	66.5
White Male	145,745	120,043	114,368	5,675	4.7	82.4
16-17	8,088	5,215	4,761	454	8.7	64.5
18-19	8,088	6,165	5,634	531	8.6	76.2
20-24	18,280	17,084	15,898	1,186	6.9	93.5
25-34	26,177	25,653	24,530	1,123	4.4	98.0
35-44	20,906	20,488	19,848	640	3.1	98.0
45-64	44,192	41,056	39,688	1,368	3.3	92.9
65 +	20,018	4,382	4,009	373	8.5	21.9
White Female	170,542	90,735	84,600	6,135	6.8	53.2
16-17	7,938	5,580	4,862	818	12.9	70.3
18-19	7,938	5,590	5,250	340	6.1	70.4
20-24	19,549	13,633	12,718	915	6.7	69.7
25-34	29,549	17,285	16,317	968	5.6	58.5
35-44	22,856	15,125	14,379	746	4.9	66.2
45-64	49,932	30,781	28,611	2,170	7.1	61.6
65 +	32,770	2,743	2,463	278	10.1	8.4
Nonwhite Male	10,242	8,471	7,358	1,113	13.1	82.7
16-17	799	243	149	94	38.7	30.1
18-19	799	523	417	106	20.3	65.4
20-24	1,974	1,923	1,619	304	15.8	97.4
25-34	2,326	2,280	2,045	235	10.3	98.0
35-44	1,452	1,403	1,263	160	11.2	98.0
45-64	2,318	1,946	1,745	201	10.3	84.0
65 +	573	133	120	13	9.8	23.1

Table IIA

Population and Labor Force Composition Projections
Fiscal Year 1980
Hampden County (CETA)

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
Nonwhite Female	13,814	7,082	5,976	1,106	15.6	51.3
16-17	823	214	152	62	29.0	26.0
18-19	823	435	352	83	19.1	52.9
20-24	1,915	1,031	734	297	28.8	53.8
25-34	3,710	2,206	1,911	295	13.4	59.5
35-44	2,324	1,517	1,232	285	18.8	65.3
45-64	3,177	1,560	14,871	73	4.7	49.1
65 +	1,043	119	108	11	9.2	11.4
Black Male	9,786	8,101	7,019	1.082	13.3	82.8
16-17	777	218	127	91	41.7	28.1
18-19	777	519	416	103	19.8	66.8
20-24	1,897	1,856	1,560	296	15.9	97.0
25-34	2,240	2,195	1,967	228	10.4	98.0
35-44	1,367	1,340	1,184	156	11.6	98.0
45-65	2,193	1,846	1,651	195	10.6	84.2
65 +	535	127	114	13	10.2	23.7
Black Female	13,137	6,736	5,654	1,082	16.1	5.1
16-17	808	210	149	61	29.0	26.0
18-19	808	415	333	82	19.8	51.4
20-24	1,891	997	707	290	29.1	52.8
25-34	3,622	2,176	1,887	289	13.3	60.1
35-44	2,103	1,389	1,109	280	20.2	66.1
45-65	2,931	1,436	1,366	70	4.9	49.0
65 +	974	113	103	10	8.8	11.6

III. Economic Outlook

In making an economic forecast for the Springfield-Chicopee-Holyoke LMA for fiscal years 1979 and 1980, it is assumed that the following conditions will prevail:

1. Inflation which reached double-digit figures early in FY 1979 appears to be gaining momentum month by month, with no relief in sight.
2. Soaring prices will diminish consumer confidence and buying power. (It was consumer spending that brought us out of the 1975 recession).
3. Demand for capital goods (capital investment) which has improved over the past year will slow down especially if the Administration continues its "tightening of credit" policy.
4. All types of energy will be available, but the cost could be detrimental to desired growth.

On the basis of these assumptions the Springfield-Chicopee-Holyoke Labor Market Area can be expected to follow these main trends through fiscal years 1979 and 1980.

1. Production of goods and services (and as a result employment) will continue to grow throughout the rest of fiscal year 1979 but at a diminished rate. The expected growth will be attributed to the strong industrial base in this area. The average rate of unemoloyment should drop to 5.5 percent in fiscal year 1979 from 5.6 percent in fiscal year 1978.

2. In fiscal year 1980, growth should diminish further and stabilization of employment of most industries will set in. The rate of unemployment will level off at 6.0 percent.

IV. Employment Developments and Outlook by Industry Projected Through Fiscal Years 1979 and 1980

In fiscal year 1979, payrolls in the manufacturing division will exceed the prerecessionary level of 1974 for the first time in this labor market area. Overall factory employment will grow even further in fiscal year 1980, but at a reduced rate as compared to the two previous years (see Table III). Growth in jobs in the durable goods sector will exceed that of nondurable goods by 66.6 percent over the next two years.

The primary metals industry is extremely affected by general business cycle fluctuations, mainly because its products are not finished goods but components of finished goods, making production of inventory difficult. Primary metals is a capital-intensive industry, involving such heavy equipment as blast furnaces, extruders of cold rolled steel, foundries producing iron castings, drop forging equipment, and drawing and insulating of nonferrous cable or wire. Due to the capital intensiveness of this industry and the constant effort by firms in the area to automate their processes, only slight growth in payrolls can be expected in this sector in 1979. Employment will level off at 2,200 in 1980 as the general economy starts to slow down.

When the ordnance industry became part of the fabricated metals industrial category in 1975, the fabricated metals industry surpassed the paper industry as the largest employer in the factory division. The fabricated metals industry is also affected by the fluctuations of the business cycle, but not as much as the primary metals sector, because many of its products are finished items, and firms can build up inventories against future sales. Firms in this sector have been especially successful in the production of hand tools, small arms, automotive hardware, screw machine products,iron and steel forged products, and castings and engraved items. There will be some losses in employment in this industry in the segment producing hand tools in 1979 due to cutbacks in orders by a large national distributor. However, these losses could be offset by gains in jobs in several smaller firms, such as: producers of small arms, fabricated wire products, heating equipment, hardware items, and various fabricated structural metal products. Payrolls in this industry should level off in FY 1979 and drop off slightly in FY 1980.

The largest growth in personnel in the hard goods producing sector will be in the nonelectrical machinery segment. This is due primarily to the recent boom in demand for capital goods. This area produces machinery for the food, textile, paper, printing and computer industries. But, the constantly rising cost of money (interest rates) will probably make this boom short lived. In this industry employment should rise in FY 1979 and at most level off in FY 1980.

Employment in the electrical machinery has still not recovered from the 1975 recession. Nevertheless, it is beginning to get close to the peak year FY 1974 when payrolls averaged 3,700. Further growth is expected over the next two months in firms producing electronic coils, transformers and other inductors, electronic components, and electronic equipment for internal combustion engines.

The largest segment of the all other durable goods category is the transportation equipment industry which is divided into three sectors: vehicle parts, bicycles and parts, and aircraft parts. The vehicle parts business consists of one large firm which caters to the trucking industry. Exceptional growth in recent years has been attributed to expansion in the diesel power trucking industry. Employment is expected to stablize and show no real growth over the next year.

Payrolls in the aircraft parts industry has been growing constantly over the past two years in this labor market area. The strong national defense program, especially in the area of military aircraft, plus recent increased demand for commercial and private planes should keep employment growing in this sector through fiscal year 1980.

The bicycle business is also a one firm industry in this area. However, the company is the second largest producer of bicycles in the nation. Being a producer of a luxury item, the firm is vulnerable to a recession. Still, it is looking ahead to a year of increased volume and a slight rise in payrolls.

Employment in the food and food processing industry in this area peaked at 3,000 in 1971, slowly declined to 2,100 by 1977, and appears to have stabilized at this level through the present time. It should continue at 2,100 through the next 18 months. The workforce is fairly evenly divided between the following lines: meat products, dairy items, baked goods, and beverages. Not much of an increase is expected in the near future because this is a highly automated industry.

Competition at home and abroad has made the textile industry a highly automated industry. The advent of "knits" in recent years forced the industry to develop new techniques and machinery to produce knitted goods. The new techniques helped the industry in the production of other textile products. The new equipment enabled some plants to double its output with less help. The industry averages several hours a week in overtime for its workers, more than most industries in the manufacturing division. Employees prefer to increase hours worked to new hiring (with its high costs of fringe benefits). There will be some growth in payrolls in 1979 in firms producing broad woven fabrics, man made fibers, and knitted goods. Employment should level off in 1980.

Extreme competition and limited opportunities to automate have made the apparel and products industry the lowest paying of the manufacturing industries in the area. Spiraling inflation could keep growth in payrolls at a minimum over the next 18 months. Small gains in hiring may be seen in one large factory producing automotive trimming and apparel findings, and firms manufacturing raincoats.

The paper industry is no longer the largest employer in this labor market area. More than a thousand jobs disappeared since 1970, when average employment was 8,800. Fluctuations in employment between 1970 and 1978 demonstrates how sensitive the paper industry is to changes in the general economy (the business cycle), to new legislation (enviromental restrictions), and even to Administration decisions (the 1975 U. S. postal hike nearly killed the direct mailing business and seriously hurt firms producing envelopes). By late 1976, many firms were back to the volume they enjoyed just prior to the 1975 recession, but this was accomplished with workforces well below 1974 levels and as a direct result of heavy investment in automated equipment and, some cases, expanded facilities. The recent acquisition of an established paper producing company, and the apparent intention of the new owner to remain in Holyoke and expand its facilities by reopening an old paper mill, could lead to 80 to 100 additional jobs over the next year.

The printing industry is highly affected by the ups and downs of the general economy. Employment reached a low of 5,400 in the recession of 1975 but bounced back quickly with the early recovery in 1976 and has been rising slowly ever since. Large gains in employment are not expected in this industry because of the capital intensive nature of the business, the high cost of paper and the high priced technology that has entered the field.

Industries included in the all other nondurable goods category make up 43 percent of the jobs in the nondurable goods sector in this labor market area. They consist largely of the following: chemicals, rubber, leather products, games and sporting goods. These industries will supply a considerable part of the growth in jobs in the soft goods sector over the next two years (See Table III). The only segment in this category which may not hire too many new workers over the next year is chemicals because it is capital-intensive, heavily automated. The games, sporting goods, leather products industries consists of firms which are leaders in their respective fields. Their products are consumer items, mostly gifts. They did very well in the recessionary year 1975 and continued to do well up to the present. These are labor-intensive industries, and it is here that payrolls should grow.

In FY 1976, total employment in the nonmanufacturing division surpassed that of a recessionary high of FY 1974. The one industry that did not recover from the recent recession is contract construction, where payrolls still run about 3,500 jobs below the peak year of fiscal 1974 (7,900 jobs reported). However, the Construction Industry Association of Western Massachusetts recently reported that "there is more than a billion dollars worth of construction in progress in this area, and the prospects for this year and 1980 are good". The association services three Western Massachusetts' counties: Hampden, Hampshire, and Berkshire. The construction of Baystate West in downtown Springfield provided big paychecks for hard hats who worked for years on the downtown site (early 70's). A representative of the Construction Industry Association said that the region now has a New "Baystate West" project which is providing a "tremendous lift" to unemployed workers. He pointed to the multi-million dollar project now being built in Holyoke, off Interstate 91 labelled "Holyoke Mall". Among the projects that will soon start are the new Springfield Fire Department headquarters, Interstate 391 construction, buildings at Springfield Technical Community College, a sewerage treatment plant in Holyoke, Smith College library addition in Northampton, an addition to Massachusetts Mutual Life Insurance Co. in Springfield, a power plant at former Westover Air Force Base, Stockbridge Court housing project in Springfield's South End, and Springfield's Symphony Hall. These projects could generate several hundred new jobs over the next 18 months.

New developments in contract construction could generate increased demands upon the transportation and public utilities industry, creating new jobs in these areas.

The industry which employs the largest number of workers in this labor market area is still wholesale and retail trade. However, personnel in this sector peaked in FY 1974 at 45,200 and then started to decline. Employment did not begin to pick up until FY 1978. During the past few years, the industry has become more and more automated. Electronic processing equipment, newly installed, made it possible for large distributors and retailers to cut down on the number of employees necessary to operate large warehouses and retail outlets and, at the same time, take care of increased consumer spending starting in 1976. Expected growth in malls should generate some growth in employment over the next two years.

Employment in the finance, insurance and real estate industry reached 10,800 in fiscal year 1974, levelled off in 1975, but began an upward trend the following year which is expected to continue for some time, reaching 11,800 in 1980. The largest gains are being recorded in the insurance industry followed by credit agencies and banks. The real estate field has not done too well due to little or no growth in new housing. In recent months some action has been visible in real estate due to a spurt in resale of older home.

Services continues to be one of the industries with the largest growth in jobs in the area. Amusements and recreational facilities and health institutions continue to provide the largest gains in personnel. Employment was further bolstered by the booming convention and exposition business over the past few years. However, growth in payrolls in fiscal years 1979 and 1980 is expected to be at a diminished rate due to a levelling off in the rate of recovery and signs of a pending recession.

Personnel in government will continue to increase over the next 18 months due largely to increases in funding of state universities and institutions. Federal and local government facilities will feel the pinch of tight budgeting.

V. Recent Unemployment Trends and Outlook

The beginning of recovery from the recent recession was first observed in the Springfield-Chicopee-Holyoke Labor Market Area in the fall of 1975. From that time on, the rate of unemployment declined, uninterrupted, except for seasonal changes, right up to the present. The number of unemployed also consistently declined during this period. In 1978 the average rate of unemployment in the area dropped to 5.3 percent (See Table V), a significant improvement over the 11.3 percent in 1975. Trends in unemployment rates showed this area recovering slightly faster than that of the state early in 1976 and slightly faster than that of the nation by the last quarter of 1977. The fact that the area is recovering faster than the state as a whole can be attributed to its excellent industrial mix and diversification within each industry. Furthermore, the combined effort of the public and private sectors to hold on to existing manufacturing industries in recent years appears to be paying off.

Economic conditions will continue to improve throughout fiscal year 1979, but at a diminished pace. Total nonagricultural employment will rise at 80 percent of what it did the previous year. Nonagricultural employment will grow far less in fiscal year 1980, about 40 percent of the 1979 pace. Inflation will take its toll of consumer spending and demand for capital goods will at least level off. On the brighter side, employment in contract construction will reach 6,000 for the first time in six years. Expansion in employment in fiscal year 1980 will not be enough to accomodate all of the new entrants and reentrants into the labor force whether they be new graduates or women. The unemployment rate will decline a bit in FY 1979 to 5.5 percent but go up to 6.0 percent in FY 1980.

Table III

Nonagricultural Wage & Salary Employment by Major Industries & Groups
Projections Through Fiscal Year 1978 & 1979
Springfield-Chicopee-Holyoke LMA

Industry	Fiscal Year Average 1977 Experience	Fiscal Year Average 1978 Experience	Fiscal Year Average 1979 Projections	Fiscal Year Average 1980 Projections
Nonagricultural Total*	216.4	223.9	229.9	232.5
Manufacturing Total	63.4	65.6	67.2	67.9
Durable Goods Total	28.4	29.6	30.3	30.4
Primary Metals	2.0	2.1	2.1	2.2
Fabricated Metals	9.9	10.4	10.4	10.2
Machinery (Nonelect.)	8.4	8.4	8.7	8.7
Electrical Machinery	2.9	3.2	3.4	3.5
All Other Durable Goods**	5.2	5.5	5.7	5.8
Nondurable Goods Total	35.0	36.0	36.9	37.5
Food	2.1	2.1	2.1	2.1
Textiles	2.0	2.1	2.3	2.3
Apparel	3.1	3.1	3.1	3.2
Paper	7.5	7.4	7.5	7.6
Printing	5.6	5.9	6.1	6.1
All Other Nondurable Total***	14.7	15.4	15.8	16.2
Nonmanufacturing Total	153.0	158.3	162.7	164.6
Contract Construction	5.1	5.3	5.6	6.0
Transportation & Pub. Utl.	9.2	9.4	9.6	9.9
Wholesale & Retail Trade	44.4	45.4	45.6	45.8
Fin., Ins., & Real Estate	11.0	11.4	11.6	11.8
Service, Misc., & Mining	39.9	41.8	42.8	43.3
Government Total	43.4	45.0	47.5	47.8

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* In thousands

** All other durable goods includes transportation equipment

*** All other nondurable goods includes chemicals, leather, rubber and games and sporting goods

Table IV

Springfield-Chicopee-Holyoke LMA
Summary Table for Economic Projections
Fiscal Year 1980
(in thousands)

Item	Actual		Projected		Actual		Projected			
					FY '77 to FY '78		FY '78 to FY '79		FY '79 to FY '80#	
	FY 1977	FY 1978	FY 1978	to FY 1979	Number	Percent	Number	Percent	Number	Percent
Labor Force*	269.6	274.2	280.3	286.7	+ 4.6	+ 1.7	+ 6.1	+2.2	+ 6.4	+ 2.3
Employment*	249.2	258.8	265.0	269.5	+ 9.6	+ 3.9	+ 6.2	+ 2.4	+ 4.5	+ 1.7
Unemployment*	20.4	15.4	15.3	17.2	- 5.0	-24.5	- 0.1	- 0.1	+ 1.9	+12.4
Unemployment Rate	7.6	5.6	5.5	6.0	xx	xx	xx	xx	xx	xx

* Current Employment Series of the Massachusetts Division of Employment Security in Cooperation With the United States Department of Labor, Bureau of Labor Statistics and the Current Population Survey

# Fiscal years, 1977, 1978, 1979 and 1980; October 1 through September 30.

Table V

Monthly Unemployment Rates For The Nation, State, and Labor Market Area Unadjusted

Period	Nation	State	Labor Market Area
1974	5.6	7.2	6.6
1975	8.5	11.2	11.3
1976	7.7	9.5	9.0
1977	7.0	8.1	7.2
1978	6.0	6.1	5.3
January	7.0	7.5	6.5
February	6.9	7.1	5.9
March	6.6	6.2	5.4
April	6.0	5.7	5.0
May	5.5	5.4	4.8
June	6.2	6.9	6.3
July	6.3	6.3	5.6
August	5.8	6.7	6.0
September	5.7	5.8	4.9
October	5.4	4.3	3.6
November	5.5	5.2	4.4
December	5.6	5.7	5.5
1979			
January	6.4	7.5	6.2
February	6.4	6.6	5.5

VI. Employment Developments and Outlook by Occupations

Occupational Requirements in the Springfield-Chicopee-Holyoke Labor Market Area 1974-1985

The total demand for workers during the 1974-1985 span of years is the sum of the demand arising from industry growth and that needed for replacement of workers who leave the labor force because of death, retirement or other separations from the labor force. The eleven-year growth component will amount to approximately 18,520, while close to seven times this number (+124,300) will be needed as replacements. On the average, therefore, approximately 11,300 additional workers will be required each year during this eleven-year span.

Estimated Annual Job Openings 1974-1985

All Occupations	Net Demand	Due to Growth	Due to Separations
Total - All Occupations	11,283	1,684	9,599
Professional, Technical Kindred	1,539	231	1,308
Mgrs., Officials, Proprietors	972	205	767
Sales Work	744	123	621
Clerical & Kindred Workers	3,129	587	2,542
Craft Workers & Supervisors	938	230	708
Operatives & Kindred Workers	1,392	- 40	1,432
Service Workers	2,328	365	1,963
Laborers, Exc. Farm & Mine	245	50	195
Farmers & Farm Workers	-4	-67	63

Source: Occupation/Industry Research Department.
(See Table IV for Occupational Breakdown).

Corresponding to state trends, the clerical division is expected to be the fastest growing group in the 1974-1985 span of years. Increased paper work will accompany the expansion of large and complex organizations, while routine clerical work may be reduced through increased use of computers or other business machines. Job opportunities should be especially prominent for secretaries, clerk-typists, bookkeepers and cashiers.

Demand for workers in the service category should expand significantly into the mid-1980's. A rising demand for hospital and other medical care and the more frequent use of restaurants and other services will foster an increased need for service workers as income levels rise. Within this division, job opportunities should abound for practical nurses aides and food service workers.

Job openings in the professional, managerial and sales divisions should expand moderately in the 1974-1985 period. Demand should be particularly strong for medical and health workers (especially registered nurses), engineers, drafters, computer specialists, teachers, accountants, financial managers, and insurance and real estate agents. However, teachers are expected to face competition for jobs as the available supply of labor in this category continues to exceed demand.

The job picture in the crafts should brighten over the next eleven years. With an expected rise in construction activity, demand should improve for carpenters, electricians, painters and plumbers. Demand should also be healthy for automobile and heavy equipment mechanics.

Among the remaining divisions, operatives and kindred workers should experience a substantial gain, laborers a slight gain. Only farmers and farm workers will show a very small loss in employment.

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Total-All Occupations	225,308	230,359	232,043	243,828	11,283	1,684	9,599
Professional, Technical, Kindred	31,335	32,028	32,259	33,875	1,539	321	1,308
Engineers, Technical	2,566	2,619	2,637	2,762	60	18	42
Engineers, Chemical	250	264	268	300	9	5	4
Engineers, Civil	288	291	292	298	8	1	7
Engineers, Electrical	460	478	484	527	11	6	5
Engineers, Industrial	577	573	571	561	8	- 1	9
Engineers, Mechanical	495	514	520	564	15	6	9
Life & Physical Scientists	371	379	381	399	13	3	10
Biological Scientists	59	57	57	53	1	- 1	2
Chemists	280	282	282	286	8	1	7
Mathematical Specialists	92	96	98	108	4	1	3
Engineers, Science Technicians	2,066	2,169	2,204	2,495	76	34	42
Chemical Technicians	255	261	263	277	7	2	5
Drafters	669	705	717	800	23	12	11
Electrical, Electronic Tech.	225	235	238	262	6	3	3
Engineering, Science Tech. NEC	672	711	724	816	31	13	18
Medical Workers, exc. Technicians	5,417	5,667	5,751	6,335	408	83	325
Dentists	327	357	367	437	25	10	15
Dietitians	65	65	65	65	4	0	4
Pharmacists	484	494	497	521	22	3	19
Registered Nurses	3,440	3,538	3,571	3,801	266	33	233
Therapists	254	290	302	386	29	12	17
Veterinarians	86	106	112	158	9	7	2

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Health Technol. and Tech.	1,161	1,280	1,390	1,596	129	40	89
Clinical Lab Technol., Tech.	397	414	420	459	32	6	26
Dental Hygienists	132	180	196	309	34	16	18
Health Record Technol., Tech.	60	71	75	102	10	4	6
Radiologic Technol., Tech.	278	283	285	296	22	2	20
Technicians, exc. Health	290	327	340	427	20	12	8
Computer Specialists	587	633	648	754	29	15	14
Computer Programers	416	441	449	506	19	8	11
Computer System Analysts	151	169	175	216	9	6	3
Social Scientests	401	408	410	427	11	2	9
Teachers	10,640	10,404	10,325	9,775	372	-79	451
College & University Teachers	3,990	3,782	3,712	3,226	29	-69	98
Elementory School Teachers	2,972	3,011	3,024	3,116	204	13	191
Preschool, Kindergarten	389	389	389	389	22	0	22
Secondary School Teachers	2,576	2,474	2,440	2,203	63	-34	97
Teachers NEC, exc. College University	661	690	699	766	50	10	40
Writers, Artists, Entertainers	1,982	2,080	2,113	2,342	110	33	77
Athletics & Kindred Workers	231	238	240	255	11	2	9
Designers	145	150	152	165	6	2	4
Editors & Reporters	281	301	308	354	21	7	14

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Writers, Artists, Entertainers							
Musicians & Composers	211	227	232	270	15	5	10
Painters & Sculpters	501	522	529	579	28	7	21
Photographers	178	190	194	221	9	4	5
Public Relations Specialists	206	210	211	219	8	1	7
Radio, TV Announcers	75	77	77	81	2	1	1
Writers, Artists, Entertainers NEC	135	146	150	177	9	4	5
Other Professional, Technical	5,762	5,965	6,032	6,505	307	68	239
Accountants	1,786	1,796	1,800	1,824	64	3	61
Clergy	430	444	449	483	23	5	18
Lawyers	733	756	764	817	41	8	33
Librarians	450	458	461	479	31	3	28
Operations, Systems Research	358	403	418	522	21	15	6
Personnel Labor Relations	453	464	468	494	19	4	15
Research Workers, NEC	214	227	232	263	12	4	8
Recreation Workers	168	172	173	181	9	1	8
Social Workers	564	577	581	611	37	4	33
Vocational Ed.Counselors	314	367	384	507	33	18	15
Managers Officials, Proprietors	22,773	23,388	23,388	25,029	972	205	767
Buyers, Sales, Loan Managers	3,927	4,166	4,245	4,802	208	80	128
Banks, Financial Managers	1,043	1,108	1,130	1,283	57	22	35
Credit Managers	175	191	196	233	13	5	8
Buyers, Wholesale, Retail	365	405	418	511	31	13	18
Purchasing Agents, Buyers NEC	509	536	545	608	24	9	15
Sales Mgrs. Retail Trade	1,156	1,223	1,245	1,400	58	22	36
Sales Mgr. exc. Retail Trade	650	677	686	748	23	9	14

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Administrators, Pub. Inspectors	2,133	2,244	2,281	2,540	130	37	93
Health Administrators	551	569	575	617	34	6	28
Inspectors, exc. Construct Pub.	174	184	187	211	9	3	6
Officials Admins. Pub.	466	472	474	487	21	2	19
Postmasters & Mail Supervisor	71	66	64	51	1	- 2	3
School Admins. College	438	497	517	656	37	20	17
School Admins. Elementary, Secondary	357	380	388	442	24	8	16
Other Managers, Officials, Prop.	16,713	16,979	17,067	17,687	635	89	546
Mgrs. Super. Bldg.	120	128	131	149	10	3	7
Office Managers NEC	863	922	942	1,079	57	20	37
Restaurant, Cafe, Bar Mgrs.	1,763	1,724	1,711	1,619	39	-13	52
Other Mgrs. Admins.	13,684	13,920	13,999	14,551	518	79	439
Sales Workers	14,251	14,620	14,743	15,604	744	123	621
Advertising Agents, Sales Works	134	145	148	173	10	4	6
Demonstrators	167	187	194	240	18	7	11
Insurance Agents, Brokers, Etc.	1,146	1,156	1,159	1,181	40	3	37
Real Estate Agents, Brokers	911	906	904	892	41	- 2	43
Sales & Sales Workers NEC	11,456	11,790	11,901	12,679	620	111	509
Clerical Workers	40,195	41,957	42,544	46,654	3,129	587	2,542
Stenographers, Typists, Secre.	11,386	12,187	12,454	14,322	1,233	267	966
Secretaries, Legal	407	435	445	511	47	9	38
Secretaries, Medical	649	710	730	872	80	20	60
Secretaries, Other	7,012	7,624	7,828	9,256	817	204	613
Stenographers	179	154	146	88	2	- 8	10
Typists	3,139	3,263	3,305	3,595	287	41	246

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Office Machine Operators	1,963	1,919	1,904	1,802	69	-15	84
Bookkeeping, Billing Operators	140	135	133	121	6	- 2	8
Calculating Machine Operators	151	150	150	148	10	0	10
Computer, Peripheral Equip.	790	819	829	898	27	10	17
Keypunch Operators	709	652	633	499	23	-19	42
Other Clerical Workers	26,846	27,851	28,186	30,530	1,827	335	1,492
Bank Tellers	998	1,038	1,051	1,145	79	13	66
Billing Clerks	547	594	610	721	56	16	40
Bookkeepers	3,771	3,748	3,740	3,686	228	- 8	236
Cashiers	3,232	3,276	3,291	3,393	222	15	207
Clerical Supervisors NEC	531	565	576	656	35	11	24
Collectors, Bills, Acct.	126	127	127	129	5	0	5
Counter Clerks, exc. Food	700	729	739	807	53	10	43
Estimators, Investigators NEC	802	837	849	931	52	12	40
Expeditors, Prod. Controllers	603	623	630	676	25	7	18
File Clerks	504	500	499	490	34	- 1	35
Insurance Adjust, Examiners	443	454	458	485	19	4	15
Library Attendants, Assist.	603	633	643	714	54	10	44
Mail Carriers, P.O.	841	813	804	738	5	- 9	14
Mail Handlers, exc. P.O.	430	448	454	496	27	6	21
Messenger & Office Helpers	162	159	158	152	8	- 1	9
Payroll, Time Keeping Clerks	811	833	840	892	59	7	51
Postal Clerks	1,026	992	980	900	16	-11	27
Receptionists	1,016	1,082	1,104	1,257	110	22	88
Shipping, Rec. Clerks	1,732	1,776	1,790	1,891	62	14	48
Statistical Clerks	799	791	788	770	43	- 3	46
Stock Clerks, Store Keepers	1,653	1,740	1,769	1,972	87	29	58
Teachers Aides, exc. Monitors	499	577	603	784	51	26	25
Telephone Operators	1,140	1,078	1,055	907	48	-21	69
Misc. Clerical Workers NEC	3,180	3,711	3,902	5,165	409	180	229

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Crafts & Kindred Workers	30,020	30,711	30,941	32,553	938	230	708
Construction Crafts Workers	7,005	7,352	7,468	8,279	278	116	162
Carpenters & Apprentices	2,163	2,226	2,247	2,395	76	21	55
Brick & Stonemasons & Appr.	467	486	492	536	14	6	8
Bulldozer Operators	126	139	143	174	6	4	2
Cement & Concrete Finishers	69	71	72	78	2	1	1
Electricians and Apprs.	1,317	1,397	1,423	1,609	53	27	26
Excavating, Grading Mach. Operators	338	372	383	463	16	11	5
Floor Layers, exc. Tile Setters	56	54	54	50	0	- 1	1
Painters and Apprentices	1,005	1,054	1,051	1,132	42	12	30
Paperhangers	103	104	104	106	4	0	4
Plasterers & Apprentices	26	25	25	22	0	- 1	1
Plumbers, Fitters & Apprentices	872	937	958	1,109	42	22	20
Roofers and Slaters	234	259	267	325	12	8	4
Structural Metal Craft Workers	140	148	151	171	5	3	2
Tilesetters	89	94	96	109	4	2	2
Blue Collar Workers, Supv. NEC	4,627	4,740	4,777	5,040	163	38	125
Metalworking Craft Workers exc. NEC	4,942	5,011	5,034	5,195	129	23	106
Forge and Hammer Operators	291	298	301	318	7	2	5
Job & Die Setters, Metal	355	381	390	452	19	9	10
Millwrights	191	194	195	201	6	1	5
Molders, Metal & Apprentices	391	387	385	375	6	- 1	7
Pattern & Model Makers	146	135	131	104	0	- 4	4
Sheetmetal Workers & Apprentices	376	381	383	396	8	2	6
Tool & Diemakers & Apprentices	1,126	1,172	1,187	1,294	39	15	24

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Mechanics, Repairers, Installers	7,235	7,472	7,551	8,103	217	79	138
Air Cond. Heating, Refrig. Mechanics	477	516	529	619	22	13	9
Auto Body Repairs	519	511	508	488	3	- 3	6
Auto Mechanics & Apprs.	2,124	2,222	2,255	2,485	71	33	38
Data Processing Mach. Repairs	99	115	120	156	6	5	1
Heavy Equip. Mech. Inc. Diesel	2,271	2,296	2,304	2,361	57	8	49
Household Appliance Mech.	255	258	259	267	6	1	5
Office Mach. Repairers	146	172	180	240	11	9	2
Radio, T.V. Repairers	365	386	393	443	15	7	8
Other Mechanics & Apprentices	693	700	703	720	17	2	15
Printing Trade Crafts Workers	1,992	1,965	1,956	1,892	44	- 9	53
Bookbinding	251	250	250	249	12	0	12
Compositors & Typesetters	731	692	679	588	7	-13	20
Photo engravers, Lithographers	298	307	310	332	10	3	7
Printing Press Operators & Apprs.	670	675	677	688	14	2	2
Transportation, Public Utilities Crafts	1,049	1,036	1,032	1,003	6	- 4	10
Electric Power Line Installation Repairs	161	167	169	182	4	2	2
Locomotive Engineers	69	71	72	78	3	1	2
Telephone Installers Repairers	596	589	587	571	- 3	- 4	1
Telephone Line Instals. Splicers	174	163	159	134	- 3	- 4	1

Table VI

Springfield-Chicopee-Holyoke Labor Market Area Projections of Employment by Occupations(cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Other Crafts, Kindred Workers	3,170	3,135	3,123	3,041	102	-12	114
Bakers	418	401	395	354	7	- 3	13
Cabinetmakers	165	160	158	146	3	- 2	5
Carpet Installers	116	125	128	149	4	3	1
Crane, Derrick & Hoist Operators	220	218	218	214	4	- 1	5
Decorators, Window Dressers	260	261	261	263	12	0	12
Dental Lab. Technicians	117	120	121	127	6	1	5
Jewelers & Watchmakers	79	80	80	81	4	0	4
Motion Picture Projectionists	61	63	64	70	7	1	6
Opticians, Lens Grinder,Polishers	146	171	180	239	14	8	6
Sign Painters	51	51	51	51	2	0	2
Stationary Engineers	467	428	415	325	0	-13	13
Tailors	118	114	113	103	5	- 1	6
Upholsterors	239	236	235	229	9	- 1	10
Crafts, Kindred NEC	283	278	276	263	8	- 2	10
Operatives	41,816	41,696	41,656	41,376	1,392	-40	1,432
Operatives, exc. Transport	34,079	33,829	33,746	33,164	1,194	-83	1,277
Semiskilled Metalworking	4,086	4,064	4,057	4,007	102	- 7	109
Drill Press Operators	390	377	373	342	8	- 4	12
Furnace Tenors	79	81	82	87	4	1	3
Grinding Machine Operators	796	798	799	804	23	1	22
Lathe, Mill Mach. Operators	507	494	490	459	7	- 4	11
Metal Platers	196	195	195	193	5	0	5
Other Precision Mach. Operators	404	403	403	402	10	0	10
Punch Stamp Precs. Operators	549	524	516	459	10	- 8	18
Solderers	174	157	151	110	1	- 6	7
Welders & Flame Cutters	968	1,013	1,028	1,133	36	15	21

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Semiskilled Textiles	660	629	619	546	17	-10	27
Knitters, Loopers,& Toppers	70	67	66	59	2	- 1	3
Spinners, Twisters, Winders	108	109	109	112	6	0	6
Weavers	56	55	55	53	3	0	3
Other Textile Operators	403	378	370	311	6	- 8	14
Semiskilled Packing Inspecting	5,693	5,833	5,879	6,205	319	47	272
Checkers, Examiners, etc. Mfg.	3,249	3,385	3,430	3,747	194	45	149
Graders & Sorters, Mfg.	244	229	224	190	7	- 5	12
Meat Wrappers, Retail Trade	216	221	223	235	15	2	13
Packer, Wrapper, exc. Meat,Prod.	1,967	1,980	1,984	2,014	101	4	97
Other Operatives, exc. Transport	23,640	23,303	23,191	22,406	756	-112	868
Asbestos, Insulation Workers	111	131	138	184	9	7	2
Assemblers	4,043	4,166	4,207	4,494	230	41	189
Bottling, Canning Operators	78	79	79	82	4	0	3
Clothing Ironers & Pressers	434	398	386	301	6	-12	18
Cutting Operators NEC	1,101	1,087	1,082	1,050	37	- 5	42
Dressmakers exc. Factory	169	166	165	158	11	- 1	12
Dry Wall Install. Lathes	211	220	223	243	5	3	2
Dyers	97	95	94	90	1	- 1	2
Filer, Polishers, Sander Buffer	706	677	667	598	11	-10	21
Garage workers, Gas Station Attendants	1,093	1,091	1,090	1,085	13	- 1	14
Laundry, Dry Cleaning Opers.NEC	517	513	512	504	27	- 1	28
Meat Cutters, Butchers, exc. Mfg.	728	698	688	618	11	-10	21

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Meat Cutters, Butchers	52	53	53	55	2	0	2
Milleners	13	12	12	9	1	0	1
Mixing Oprs.	392	373	367	324	2	- 6	8
Oilers, Greasers, exc. Auto	123	122	122	121	3	0	3
Painters, Mfg. Articles	431	433	433	437	13	1	12
Photographers Process Workers	241	263	270	320	18	7	11
Rivetors and Fasteners	107	105	105	101	4	- 1	5
Sawyers	89	90	91	94	4	0	4
Sewers and Stitchers	1,810	1,657	1,606	1,248	43	-51	94
Furnace Tenders, Stokers exc. Metal	235	222	217	186	5	- 4	9
Winding Oprs. NEC	551	547	545	535	21	- 1	22
Misc. Machine Operators	6,866	6,718	6,669	6,322	176	-49	225
Operatives NEC	3,304	3,261	3,247	3,148	99	-14	113
Transport Equip. Operatives	7,737	7,867	7,910	8,212	199	43	156
Bus Drivers	992	996	997	1,006	37	1	36
Delivery & Route Workers	2,193	2,258	2,279	2,430	62	22	40
Fork Lift, Tow Motor Operators	887	898	901	926	17	4	13
R.R. Brake Operators	85	86	86	87	2	0	2
Taxi Drivers, Chauffeurs	361	348	343	312	7	- 4	11
Truck Drivers	3,188	3,254	3,276	3,429	75	22	53
Service Workers	34,409	35,504	35,869	38,425	2,328	365	1,963
Cleaning Service Workers	6,704	6,984	7,078	7,732	471	93	378
Lodging Quarters Cleaners exc. P.R.	709	718	721	741	56	3	53
Bldg. Int. Cleaners, NEC	1,700	1,849	1,899	2,246	165	50	116
Janitors and Sextons	4,295	4,418	4,459	4,745	250	41	209

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Food Service Workers	12,599	12,918	13,025	13,770	758	106	652
Bartenders	1,115	1,146	1,156	1,229	53	10	43
Waiters' Assts	398	402	404	414	7	1	6
Cooks, exc. Private	2,190	2,283	2,314	2,531	124	31	93
Dishwashers	757	766	769	789	30	3	27
Food Counter, Fountain Workers	1,623	1,654	1,664	1,737	99	10	89
Waiters	4,703	4,824	4,865	5,148	333	40	293
Food Workers,NEC,exc. Private	1,813	1,843	1,853	1,922	111	10	101
Health Service Workers	5,432	5,890	6,042	7,110	581	153	428
Dental Assistants	391	422	433	506	48	10	38
Health Aides, exc. Nursing	437	463	472	532	43	9	34
Health Trainees	52	41	37	11	- 1	- 4	3
Nurses Aides, Orderlies	2,438	2,616	2,675	3,090	232	59	173
Practical Nurses	2,114	2,348	2,426	2,971	258	78	180
Personal Services Workers	4,398	4,585	4,647	5,082	356	62	294
Atten. Recreation Amusements	254	258	259	269	14	1	13
Atten. Personal Service NEC	166	167	167	170	13	0	13
Barbers	492	444	428	315	1	-16	17
Boarding, Lodging, Housekeepers	95	101	103	118	12	2	10
Child Care Workers exc. Private	719	856	901	1,220	116	46	70
Elevator Operators	81	71	68	46	2	- 3	5
Hairdressers, Cosmetologists	1,574	1,623	1,639	1,754	126	16	110
Housekeeper exc. Private	648	652	653	661	40	1	39
School Monitors	261	296	308	391	24	12	12
Welfare Service Aides	88	97	100	120	8	3	5

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Protective & Service Workers	4,115	4,104	4,100	4,024	127	- 4	131
Crossing Guard, Bridgetenders	142	137	136	125	7	- 2	9
Firefighters	1,175	1,154	1,147	1,098	10	- 7	17
Guards	1,318	1,293	1,288	1,254	71	- 5	76
Police and Detectives	1,420	1,449	1,459	1,526	35	10	25
Sheriffs and Bailiffs	63	64	64	65	4	0	4
Private Household Workers	1,161	1,024	978	657	34	-46	80
Child Care Workers	421	366	348	221	10	-18	28
Housekeepers Private	125	111	106	72	4	- 5	9
Private Household Cleaners, Service	582	518	497	347	20	-21	41
Laborers, Exc. Farm	8,516	8,665	8,715	9,046	245	50	195
Animal Caretakers, exc. Farms	134	164	174	245	18	10	8
Carpenters, Helpers	153	149	148	139	1	- 1	2
Constr. Laborers, exc. Carp. Helpers	1,417	1,446	1,456	1,524	32	10	22
Freight Material Handlers	1,714	1,731	1,736	1,775	39	6	33
Garbage Collectors	145	160	165	200	8	5	3
Gardeners, Groundkeepers exc. Farm	1,115	1,171	1,190	1,321	65	19	46
Stock Handlers	2,162	2,201	2,214	2,306	52	13	39

Table VI

Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations (cont.)

Occupational Categories and Selected Occupations	1974 Employment Number	Est. 1977 Employment Number	Est. 1978 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1974-1985		
					Number	Due to Openings Growth	Openings Due to Separations
Vehicle Washers, Equip. Cleaners	437	434	433	427	9	- 1	10
Warehouse Laborers, NEC	431	412	406	362	1	- 6	7
Other Laborers	794	778	772	734	19	- 5	25
Farmers and Farm Workers	1,993	1,790	1,722	1,248	- 4	-67	63
Farmers and Farm Managers	589	531	512	378	4	-19	24
Farm Laborers Farm Supv.	1,404	1,258	1,210	870	- 9	-49	40
Farm Labor Supervisors	26	25	25	23	1	- 0	1
Farm Labor Wage Workers	1,042	925	886	612	-13	-39	26
Farm Labor Unpaid Family	336	308	299	235	4	- 9	13

VII. Supply and Demand of Labor in High Demand Occupations

A study of supply and demand of labor in several high demand occupations in the Springfield-Chicopee-Holyoke labor market areas has been completed. Occupations selected were: machine operator, welder, licensed practical nurse, secretary, stenographer, typist and bookkeeper. Surveys were made in a number of firms and institutions in which there is a high net demand for these particular occupations. Looking at past and present payrolls and demand for products or services, heads of personnel were able to project their needs for the coming year, whether it be due to replacement or expected growth.

More occupations will be surveyed in the near future.

In addition, a survey was made of the vocational educational institutions in the area, recording those who graduated in June 1978 in their respective courses. Since most schools do a follow-up of recent graduates in early fall it was possible to determine the percentage of graduates who remained in the area and became part of the labor force for which they were trained. Placement directors were then able to apply these percentages to junior and senior class enrollments in various courses and thereby project the numbers who can be expected to enter particular trades in their labor market area.

Machine Tool Operators

(D.O.T. 602., 603., 604., 605., and 606.)

Nature of Work*

Machine tool operators use machine tools such as lathes, drill pressers, milling machines, grinding machines, and punch presses to shape metal to precise dimensions. Although some operators can work with a wide variety of machine tools, most specialize in one or two types.

Operators fall into two broad skill categories - semiskilled and skilled. Semiskilled operators are essentially machine tenders who perform simple, repetitive operations that can be learned relatively quickly. Skilled operators can perform varied and complex machining operations. Both skilled and semiskilled operators have job titles related to the kind of machine they operate, such as milling machine operator and drill press operator.

Most machine tool operators fall into the semiskilled category. Their jobs vary according to the type of machine they work with; however, there are many tasks common to most machine tools. Typically, semiskilled operators place rough metal stock in a machine tool on which the speeds and operation sequence already have been set by skilled workers. By using special, easy-to-use gauges they watch the machine and make minor adjustments. However, they depend on skilled machining workers for major adjustments when their machine is not working properly.

The work of skilled machine tool operators is similar to that of all-round machinists, except that it usually is limited to only one type of machine and involves little or no hand fitting or assembly work. Skilled machine tool operators plan and set up the correct sequence of machining operations according to blueprints, layouts, or other instructions. They adjust speed, feed, and other controls, and select the proper cutting instruments or tools for each operation. Using micrometers, gauges, and other precision measuring instruments, they compare the completed work with the tolerance limits given in the specifications. They also may select cutting oils to keep the metal workpiece from getting too hot and lubricating oils to keep the machine tools running smoothly.

Working Conditions*

Most shops are clean and work-places are well-lighted. Machine tool operators must use protective glasses to protect their eyes from flying metal particles. They cannot wear loose-fitting garments as these might get caught in the machine, injuring the operator or causing damage to the machine.

Most machine tool operators belong to unions including the International Association of Machinists and Aerospace Workers; the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America; the International Union of Electrical, Radio and Machine Workers; the International Brotherhood of Electrical Workers; and the United Steelworkers of America.

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* Source: Occupational Outlook Handbook
1978 - 1979 Edition

Supply and Demand of Machine Tool Operators
In The
Springfield-Chicopee-Holyoke Labor Market Area

Of the machine trades, machine tool operators (drill press, lathes, boring and others) are in greatest demand by firms in this area. These are the volume producers in most plants. The trade schools are very well aware of this and are programmed to train machine tool operators rather than all around machinists or tool and die makers. Many of the larger firms have in-house programs whereby some machine tool operators are trained to become all around machinists or tool and die makers. However, many firms opt to farm out the making of tools and dies to specialty machine shops.

Plants use various sources for recruitment of machine operators with preference given to direct application, followed by public employment agencies, newspaper advertising, and local trade schools.

Those employed in this occupation usually commute to work from a distance of five or more miles from the plant but within the labor market area.

There are no strict educational requirements for this occupation, however most firms prefer a graduate from a vocational school or a skilled center. Minimal experience varies from zero to twelve months with many firms looking for talent and supplying their own training and on-the-job experience.

Machine tool operators are paid according to hourly or incentive rates, or on a basis of a combination of both methods.

Minimum starting wages vary from $2.85 an hour to $5.71, but average $4.06. At the end of one year the average goes up to $5.13. The average maximum wage for the occupation is $6.70 with the highly skilled earning as much as $8.00 an hour.

Between 1976 and 1977, employment in this occupation in the six plants surveyed increased from 972 to 1,094, up by 12.6 percent, but by August 1978 it dropped to 1,002, a loss of 8.4 percent. By August 1978, firms employing large numbers of machine operators felt that conditions were levelling off in their respective industries, and they foresaw a period (12 to 18 months) of stabilization in employment, with most new hirings for replacement purposes only.

Actual growth in demand for machine operators could be hampered by a possible recession in 1979, even if it be slight and short-lived. The next few years will see more and more plants investing in numerically controlled (computerized) equipment, further reducing demand for machine operators.

In June 1978, 67 students graduated from the four vocational, technical high schools in the Springfield, Chicopee, Holyoke Labor Market Area, after having completed a training program as machine tool operators. Many of these students have acquired valuable experience by working part-time or in the Coop Plan while attending school. In September 1978, 186 completed a training program at the skilled center in Springfield. About 90 percent of the above remained in the trade and resided in the labor market area.

Looking at the senior and junior classes at the four vocational technical schools, graduates in the machine tool operators' course will drop to 50 in 1979 but climb dramatically to 90 in 1980. The local skilled center is planning to train (pending funding) 256 more operators in 1979 and 300 in 1980. However, it is conceivable that firms in the area will not be able to absorb that many additional machine operators, and this could create a labor surplus by early 1980.

Since most schools surveyed have excess capacity to train in this occupation, it might be advantageous to use these facilities to upgrade those skills required by a constantly changing industry, with its new techniques and faster, more versatile equipment.

Welders

(D.O.T. 810 through 819.887)

Nature of Work*

Welding consists of joining pieces of material, usually metal, by fusing or bonding them together. It is the most common method of permanently connecting metal parts that go into the construction of automobiles, spacecraft, ships, household appliances, construction equipment, and thousands of other products. Beams and steel reinforcing rods in bridges, buildings, and roads frequently are joined by welding. In addition, a growing number of plastic parts are welded to make a variety of products.

Welding processes differ in the way heat is created and applied to the parts being joined. In arc welding, the most frequently used process, heat is created as electricity flows across a gap from the tip of the welding electrode to the metal. In resistance welding, heat is created by resistance to the flow of current through the metal. In gas welding, the combustion of burning gases melts the metal. As part of many welding processes, filler materials, called welding electrodes or welding rods, are melted and added to the joint to give it greater strength. When the heat is removed, the metal and filler material solidify and join the parts. It is the welder's job to control the heat and the weld pool size and to add the filler material so that together they form a strong joint.

Since welding processes differ and are used for a wide variety of purposes the equipment used and the skill levels of welders vary. Jobs vary from those of highly skilled manual welders who can use gas and electric are welding equipment in more than one position and who can plan their work from drawings or other specifications to those of unskilled welding machine tenders who simply press a button to start the welding machine. Skilled welders know the material characteristics and properties of steel, aluminum, and other metals and can weld joints in all positions.

Working Conditions*

Welders and cutters use protective clothing, safety shoes, goggles, helmets with protective lenses, and other devices to prevent burns and eye injuries. Although lighting and ventilation usually are adequate, welders occasionally work in the presence of toxic gases and fumes created when some metals melt. They are often in contact with rust, grease, and dirt on metal surfaces. Welding machine operators are largely free from the hazards associated with manual welding. A face shield or goggles generally offer adequate protection to these workers.

Many welders are union members. However, because welding also is done by other craft workers, for example by pipefitters, and only recently has received recognition as a distinct craft, welders belong to many different unions. Among these are the International Association of Machinists and Aerospace Workers; the International Brotherhood of Boiler-makers, Iron Shipbuilders, Blacksmiths, Forgers and Helpers; the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America; the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada; and the United Electrical, Radio and Machine Workers of America (Ind.).

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* Source: Occupational Outlook Handbook
1978-1979 Edition

Supply and Demand of Welding Machine Operators (Welders)
In The
Springfield-Chicopee-Holyoke Labor Market Area

In their recruitment of welders, plants show preference for public agencies such as the Massachusetts Division of Employment Security and educational institutions (skilled centers or vocational schools). Much of the hiring is done from direct applications or referrals from within the company. Newspaper advertising is used as a last resort.

Those employed in this occupation usually commute to work from a distance of five or more miles but most live within the labor market area.

The only educational requirement is basic English. Firms usually prefer applicants with one or more years of experience. In lieu of experience, preference is shown for those who have completed a course at a local vocational school or skilled center.

The average entry wage for welders in this labor market area is $3.51 an hour. At the end of one year the average wage goes up to $4.16 an hour. Average maximum earnings is $6.78 with highly skilled workers making as much as $7.85 an hour.

Between August 1976 and August 1978, employment of welding machine operators in the plants surveyed rose from 75 to 92, up 22.7 percent.

Firms in this area anticipate little or no growth in demand for welders over the year due to the expected slowdown in the economy. Since there is a large turnover of help in this occupation (in some firms as much as 20 percent), most hiring in 1979 will be due to replacement.

The vocational, technical schools surveyed showed 20 graduated trained as welders in June 1978. Approximately the same number should graduate in 1979 and 1980. However, the skilled center trained 51 welding machine operators in 1978, and expect to increase the class to 60 in 1979 (if funding permits) and 72 in 1970. The survey revealed that most of the operators trained in the local schools or skilled center remained in the area after graduation. This should take care of demand in this occupation in the labor market area without creating a surplus over the next two years.

LICENSED PRACTICAL NURSES

(D.O.T. 079.378)

Nature of Work*

Licensed practical nurses (LPN's) help care for the physically or mentally ill and infirm. Under the direction of physicians and registered nurses, they provide nursing care that requires technical knowledge but not the professional education and training of a registered nurse.

In hospitals, LPN's provide much of the bedside care needed by patients. They take and record temperatures and blood pressures, change dressings, administer certain prescribed medicines, and help patients with bathing and other personal hygiene. They assist physicians and registered nurses in examining patients and in carrying out nursing procedures. They also assist in the delivery, care, and feeding of infants. Some practical nurses work in specialized units as intensive care units, recovery rooms, or burn units. They perform special nursing procedures and operate sophisticated equipment to provide care for seriously ill or injured patients. In some instances, experienced LPN's supervise hospital attendants and nursing aides.

LPN's who work in private homes provide day-to-day patient care that seldom involves highly technical procedures or complicated equipment. In addition to providing nursing care, they may prepare meals, see that patients are comfortable and help keep up their morale. They also teach family members how to perform simple nursing tasks.

In doctors' offices and in clinics, LPN's prepare patients for examination and treatment, administer medications, apply dressings, and teach patients prescribed health care regimens. They also may make appointments and record information about patients.

* Source: Occupational Outlook Handbook
1989 - 1979 Edition

In 1976, over 1,350 State-approved programs provided practical nursing training. Trade, techinical, or vocational schools offered more than half of these programs. Other programs were available at junior colleges, local hospitals, health agencies, and private educational institutions. Several programs operated by the Army for military personnel also were state-approved for practical nurse training. Graduates from these programs are eligible for licensure.

Classroom instruction covers nursing concepts and principles and related subjects including anatomy, physiology, medical-surgical nursing, pediatrics, obstetrics, psychiatric nursing, administration of drugs, nutrition, first aid, and apply their skill to an actual nursing situation through supervised clinical experience - usually in a hospital.

Those who wish to become licensed practical nurses should have a deep concern for human welfare. They must be emotionally stable because working with sick and injured people sometimes can be upsetting.

As part of a health care team, they must be able to follow orders and work under close supervision. Good health is very important, as is the physical stamina needed to work while standing a great deal.

Advancement opportunities are limited without additional training or formal education. In-service educational programs prepare some LPN's for work in specialized areas, such as post-surgery recovery rooms, or intensive care units. Under career ladder programs, nurses' aides may attend training to become LPN's while continuing to work part-time. Similarly, in some cases, LPN's may prepare to become registered nurses while they continue to work part-time.

Supply and Demand of Licensed Practical Nurses (LPN's)
In The
Springfield-Chicopee-Holyoke Labor Market Area

Hospitals use several sources for recruitment of LPN's with preference given to educational institutions (10 month course), followed by newspaper advertising, the Massachusetts Division of Employment Security, referrals from within the facility, and direct applications.

In the institutions surveyed, about half of the LPN's lived within five miles of the hospital and the balance beyond five miles but usually within the labor market area.

Educational requirements for an LPN consists of completing a course (usually 10 months) at an accredited school, passing a state board examination and receiving a license. Their license must be renewed every two years. Beginning January 1, 1983 "every person seeking renewal or licensing hereunder shall provide evidence of such continuing education as the board shall require by regulation, unless the board accepts the training and experience of any such person in lieu of said continuing education requirements".* However, there is an attempt being made by the National Association of Registered Nurses to eliminate both the LPN program and the three year registered nurse training program now being given at hospitals by 1985. This will leave only the two year college registered nurse program to train technicians and the four year college BA degree program to train specialists and administrative personnel. This will require state legislature approval and will be very difficult to pass.

There is no specific time experience required for LPN's.. However, in some hospitals the typical new person hired has one or more years of experience.

Minimum starting wages for LPN's vary only slightly, from $4.29 to $4.55 an hour. The average wage of the sample taken is $4.83 an hour. Average maximum earnings for this occupation is $5.12 an hour with some earning $5.50.

* Source: Commonwealth of Massachusetts Digest of Statutes, Relating to the Board of Registration in Nursing. In effect on 2/15/1972.

Between August 1976 and 1978 employment of LPN's in the institutions surveyed rose from 608 to 643, up only 5.8 percent over two years. Except for replacements, employment of LPN's in hospitals appears to have stabilized. Future growth will depend largely on the effects of mergers planned for hospitals in the area.

The survey of four Schools of Practical Nursing in the area showed 138 graduated in 1978. The same number should graduate in 1979 and in 1980. About 95 percent are expected to remain in this occupation and practice in the area. In 1979, replacements, slight growth, and the constant need for LPN's in nursing homes should gobble up the entire supply of graduates and those who move into the area in search of work.

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Long-Term Employment Outlook for Clerical Workers

Employment of clerical workers is expected to increase faster than the average for all occupations through the mid-1980's (see Graph A). This is largely due to the growing national trend in service-oriented industries in recent years. Between 1970 and 1978 in the Springfield-Chicopee-Holyoke labor market areas nonmanufacturing payrolls grew by 13.5 percent, from 140,100 to 159,000, while factory employment rose by 5.9 percent, from 62,500 to 66,200. In addition to the new clerical jobs created by this growth, many other openings will occur as employees die, retire, or leave their jobs.

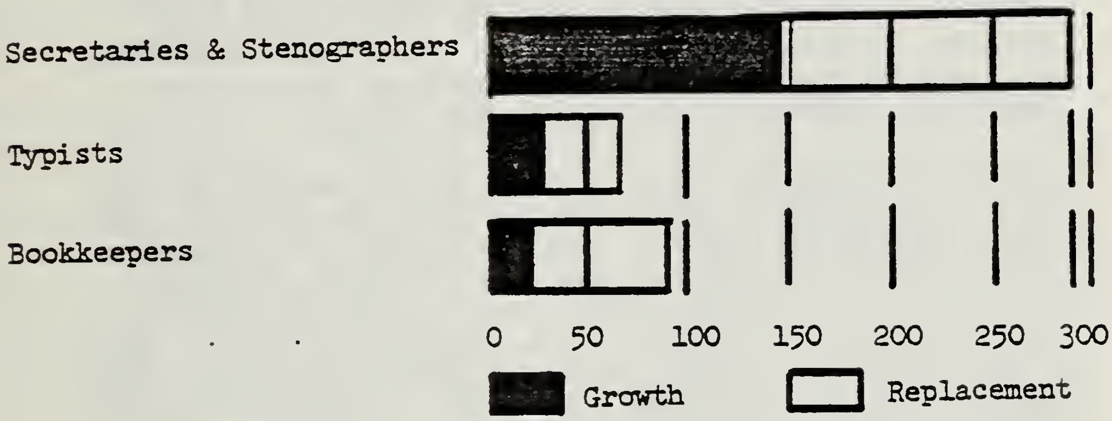
Future growth in the number of clerical workers is expected to result primarily from the increasing paperwork that will accompany the expansion of large and complex organizations. A great deal of this paperwork is handled by computer. The impact of automation on office equipment and procedures is considerable, but it is more important in some jobs than in others. In general, long-term employment prospects are best in clerical occupations that are not affected by automation, in those that are compatible with computer applications, and in jobs that have developed as a result of new technologies.

GRAPH A

Openings for secretaries are expected to be more than three times the number of openings for any other clerical occupation through 1985

NATIONAL

Selected clerical occupations
Average annual openings, 1976-85 (in thousands)



Source: Bureau of Labor Statistics

CLERICAL OCCUPATIONS

Secretaries and Stenographers (D.O.T. 201.268 and .368, 202.388, and 209.138)

Nature of the Work

The efficiency of any organization depends upon secretaries and stenographers, who are at the center of communications within their firm. They transmit information to the staff and to persons in other organizations.

Secretaries (D.O.T. 201.368) relieve their employers of routine duties so that they can work on more important matters. Although most secretaries type, take shorthand, and deal with callers, the time spent on these duties varies in different types of organizations.

In offices where dictation and typing are handled in word processing centers, administrative secretaries handle all other secretarial duties. They often work in clusters of three or four so that they can readily help each other. Because they are released from dictation and typing, they can serve several members of the professional staff. Their duties range from filing, routing mail, and answering telephones to more responsible jobs such as answering letters, doing statistical research, and writing reports.

Some secretaries are trained in specific skills needed in certain types of work. Medical secretaries prepare case histories and medical reports; legal secretaries do legal research and help prepare briefs; and technical secretaries assist engineers or scientist in drafting reports and research proposals. Another specialized secretary is the social secretary (D.O.T. 201.268), who arranges social functions, answers personal correspondence, and keeps the employer informed about all social activities.

Stenographers (D.O.T. 202.388) take dictation and then transcribe their notes on a typewriter. They may either take shorthand or use a stenotype machine that prints symbols as certain keys are pressed.

General stenographers, including most beginners, take routine dictation and do other office tasks such as typing, filing, answering telephones, and operating office machines.

Experienced and highly skilled stenographers take difficult dictation and do more responsible clerical work. They may sit in on staff meetings and give a summary report or a word-for-word record of the proceedings. They also supervise other stenographers, typists, and clerical workers.

Technical stenographers must know the terms used in a particular profession. They include medical, legal, and engineering or scientific stenographers. Some experienced stenographers take dictation in foreign languages; others work as public stenographers serving traveling business people and others.

Shorthand reporters are specialized stenographers who record all statements made in a proceeding. Nearly half of all shorthand reporters work as court reporters attached to courts of law at different levels of government. They take down all statements made at legal proceedings and present their record as the official transcript. Many other shorthand reporters work as free-lance reporters who record out-of-court testimony for attorneys, meetings and conventions, and other private activities. Still others record the proceedings in the Congress of the United States, in State legislatures, and in both State and Federal agencies.

Most reporters dictate notes on magnetic tapes that a typist can transcribe later. Because the reporter's transcript is the official record of a proceeding, accuracy is vitally important.

Source: Occupational Outlook Handbook
1978 - 1979 Edition

TYPISTS
(D.O.T. 203.138 through .588; 208.588; and 209.382 through .588)

Nature of the Work

A rapid flow of written communication is essential to the modern office. The typist helps to maintain this flow by making neat typed copies of handwritten, printed, and recorded words.

Beginning or junior typist usually type headings on form letters, copy directly from handwritten drafts, and address envelopes. Often, they do other office tasks, including answering telephones, filing, and operating office machines such as copiers and calculators.

More experienced typists do work that requires a high degree of accuracy and independent judgment. Senior typists work from rough drafts which are difficult to read or which contain technical material. They may plan and type complicated statistical tables, combine and rearrange materials from different sources, or prepare master copies to be reproduced on copying machines.

Clerk typists (D.O.T. 209.388) combine typing with filing, sorting mail, answering telephones, and other general office work. Varitypists (D.O.T. 203.582) produce master copies, such as stencils, on machines similar to typewriters.

Transcribing machine operators (D.O.T. 208.588) type letters and reports as they listen to dictation recorded on magnetic tape. Other typists who have special duties include policy writers (D.O.T. 203.588) in insurance companies, waybill clerks (D.O.T. 209.588) in railroad offices, and mortgage clerks (D.O.T. 203.588) who work in banks.

In some offices, many typists are grouped in a specialized word processing center that handles all the transcription and typing for several departments. These workers, usually called correspondence secretaries, operate various kinds of high-speed typewriters equipped with a programmed memory which enables them to produce final copy with a minimum of retyping.

BOOKKEEPING WORKERS
(D.O.T. 210.368 through .588, 216.388, and 219.388 and .488)

Nature of the Work

Every business needs systematic and up-to-date records of accounts and business transactions. Bookkeeping workers maintain these records in journals, ledgers, and on other accounting forms. They also prepare periodic financial statements showing all money received and paid out. The duties of bookkeeping workers vary with the size of the business.

In many small firms, general bookkeepers (D.O.T. 210.388) are the only bookkeeping workers. They analyze and record all financial transactions, such as orders and cash sales. They also check money taken in against that paid out to be sure accounts "balance", and calculate the firm's payroll. Although most of this work is done by hand, bookkeeping workers generally use simple office equipment such as calculating machines. General bookkeepers also prepare and mail customers' bills and answer the telephone.

In large businesses, a number of bookkeepers and accounting clerks work under the direction of a head or supervisory bookkeeper. In these organizations bookkeepers often specialize in certain types of work. For example, some prepare statements on a company's income from sales or its daily operating expenses. Others may post payments and charges on cards using bookkeeping machines or feed information on accounts receivable and accounts payable into the computer. Accounting clerks (D.O.T. 219.488), sometimes known as bookkeeping clerks, perform a variety of routine duties. They record details of business transactions, including deductions from payrolls and bills paid and due. They also may type vouchers, invoices, and other financial records.

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Supply of Clerical Workers

The five schools in this labor market area which specialize in business have comprehensive curriculum which prepare students for secretarial work, stenography, typing, and bookkeeping. In June 1978, 1,350 students graduated from these schools. Based on junior and senior class enrollment, this figure should increase by 100 in 1979 and another 100 in 1980. About 50 percent of these graduates are expected to remain in this area and use their clerical skills. Furthermore, 250 students completed a similar commercial program in 1978 at the Hampden County Skilled Center in Springfield. Pending funding this center is expected to train 260 in 1979 and 270 in 1980 in this program. Apparently the schools are training enough clerical workers to meet the needs of industry, at least at the entry level.

Although DES is not the prime source for recruitment of clerical help by employers in this labor market area, it is a significant source. During the first four months of fiscal year 1979, 370 applicants registered as secretaries at the DES offices in this labor market area. Since only 29 were recorded in January, the number of new applicants appear to be, at least temporarily slowing down. By the end of January, there were still 219 active applicants on file seeking secretarial positions. Many were not able to meet the requirements of jobs made available through the Division of Employment Security. This is becoming more and more of a problem in a fast-changing, technological, industrial society. Some were women reentering the labor market after several years without updating their skills. Others were women looking for part time work. In January the DES in this labor market area supplied industry with 25 secretaries.

Few applicants register at DES for stenographic work. With good skills those that do are easily placed.

During the first four months of fiscal year 1979, 864 applicants registered as typists at the DES. Only 51 applied in January, representing a sharp decline. However, during the same month 121 positions were filled.

In the same four months 185 applicants registered as bookkeepers at DES. Only 11 filed in January. In January 16 positions were filled.

Most firms surveyed early this year feel that there are enough clerical help available in this labor market area to meet their needs.

Demand of Clerical Workers

Of the clerical occupations, secretaries are in greatest demand by employers surveyed in the labor market area. Secretaries make-up 40 percent of the cluster, followed by bookkeepers (27 percent), typists (24 percent), and stenographers (9 percent). Bookkeepers are high in demand in this area because of the home office of one large insurance company.

Firms and institutions use various sources for recruitment of clerical help, with preference given to direct applications, followed by newspaper advertisements, internal recruitment, and some use of local schools and the Massachusetts Division of Employment Security.

Those employed in those occupations usually commute an average distance of five or more miles to work but they usually live within the labor market area.

Most employers require at least a high school education for these occupations. Minimal experience requirements for new hires varies from six to 12 months; however typical experience for new hires is between 12 and 24 months.

Starting wage for secretaries varies from a low of $3.25 an hour to a high of $5.70. Those making $5.70 are usually highly trained and capable of taking on administrative duties. The average maximum wage in this occupation is $5.30 an hour, with some earning as much as $8.00 an hour.

Stenographers usually work at a lower wage level than secretaries but many gradually raise themselves up to secretarial positions. Starting wages for stenographers varies from a low of $3.10 per hour to a high of $5.07. Those receiving $5.07 an hour usually have special technical skills (medical, legal, or scientific). The average maximum wage for stenographers is $4.65 an hour, with some earnings as much as $7.38 an hour.

Starting pay for typists range from $2.95 to $4.50 an hour. Those receiving $4.50 are definitely the highly experienced. The average maximum wage in this occupation is $3.95 an hour with some earnings as high as $4.65.

Hourly wages for bookkeepers vary from $3.00 to $4.80. The average maximum hourly wage is $4.50 with some making as much as $5.20 an hour.

The total number of clerical jobs in this area rose only slightly between 1977 and 1978, by five percent. The recent survey indicated that clerical positions are expected to rise by 11.7 percent in 1979. This estimate is optimistic in view of continued reference to a coming recession in 1979 by leading economists. However, most of the real growth will be limited to the insurance industry, and to one large firm in particular. The largest percentage of new hires in the clerical field will still be for replacement purposes.

Demand of secretaries will rise mainly as organizations that require large secretarial staffs expand. New government agencies, particularly at the state and local level, insurance companies offering new forms of protection, and banks providing financial counseling for an increasingly affluent population are just a few organizations that will need well trained secretaries in the years ahead. Jobseekers who are familiar with a wide range of office equipment and procedures are likely to have better prospects than other workers.

Employment of stenographers is expected to continue the decline of recent years. This is specifically due to the increased use of dictation machines.

The number of typists is expected to grow about as fast as the growth in the economy, particularly in those industries that generate most quantities of written records and correspondence.

Jobs for bookkeepers are still numerous even though employment is expected to grow slowly over the next few years. The occupation is still large, but the turnover is high. Most openings will occur for replacement reasons. Future employment growth in this occupation is bound to be slowed down by the increasing use of various types of bookkeeping machines (electronic computers) that process data more accurately, rapidly, and economically than workers doing it by hand. The best opportunities for employment of bookkeepers will be in wholesale and retail trade, insurance companies, banks, hospitals, schools and smaller factories.

Persons with any of these four clerical skills; secretarial, typing, stenographic, or bookkeeping should also find extensive opportunities for temporary or part-time work as employers increasingly turn to these workers during peak business periods.

Occupational Profile Of Secretaries
In Manufacturing Industries in Massachusetts

Reference Date: June 1977
Sample: 3,150 Employers with total employment of 315,807

SIC Code	Industry	Number of Secretaries	Percent Employment In Industry
20	Food And Kindred	430	1.46
201	Meat Products	10	0.37
202	Dairy Products	170	3.06
205	Bakery Products	30	0.47
208	Beverages	20	0.65
209	Misc. Food & Kindred	100	1.95
22	Textile Mill Products	230	0.83
225	Knitting Mills	30	0.47
226	Textile Finishing, Except Wool	20	0.34
228	Yard And Thread Mills	10	0.46
229	Misc. Textile Goods	110	2.06
25	Furniture And Fixtures	80	0.96
26	Paper And Allied Products	80	1.27
262	Paper Mills, Except Building Paper Mills	80	1.27
264	Miscellaneous Converted	210	1.62
277	Paper Products Greeting Card Publishing	20	1.46
279	Printing Trade Services	10	0.98
285	Paints And Allied Products	30	2.38
301	Tires And Inner Tubes	20	0.86
307	Miscellaneous Plastics Products	250	1.25
31	Leather And Leather Products	130	0.55
313	Boot And Shoe Cutstock And Findings	10	0.37
314	Footwear Except Rubber	80	0.55
317	Handbags And Other Personal Leather Goods	20	0.77
321,322,323	Glass And Glass Ware	10	0.61
324,325,326, 327,328,329	Nonmetallic Mineral Products	170	1.78

Occupational Profile Of Secretaries
In Manufacturing Industries in Massachusetts

Reference Date: June 1977
Sample: 3,150 Employers with total employment of 315,807
(continued)

SIC Code	Industry	Number of Secretaries	Percent Employment In Industry
327	Concrete, Gypsum, And Plaster Products	20	0.83
329	Abrasive, Asbestos, And Miscellaneous Nonmetalic Mineral Products	130	2.05
34	Fabricated Metal Products	1100	2.14
342	Cutlery, Hand Tools, And General Hardware	490	3.79
347	Metal Services, N.E.C.	50	1.29
351	Engines And Turbines	110	1.75
353	Construction And Related Machinery	30	2.97
363	Household Appliances	80	6.25
366	Communications Equipment	610	2.46
372	Aircrafts And Parts	230	2.74
38	Scientific Instruments	1580	3.11
382	Measuring And Controlling Instruments	450	2.70
385	Ophthalmic Goods	110	1.89
386	Photographic Equipment And Supplies	510	3.85
387	Watches, Clocks, And Watches	20	1.16
39	Misc. Manufacturing Industries	450	2.70
391	Jewelry, Silverware, And Plated Ware	130	1.61

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Occupational Profile Of Secretaries In Non - Manufacturing Industries in Massachusetts

Reference Date: June 1973

Sample: 3144 Employers with total employment of 162,652

SIC Code	Industry	Number of Secretaries	Percent Employment In Industry
41	Local And Interurban Passenger Transit	60	0.82
411	Local And Suburban Transit	40	1.50
412	Taxi Cabs	20	0.30
415	School Buses	20	0.63
47	Transportation Services	190	4.95
483	Radio And Television Broadcasting	120	4.01
49 except 494,495,497	Electrical And Gas Services	440	2.35
60	Banking	1630	3.77
602	Commercial And Stock Savings Banks	1190	3.81
603	Mutual Savings Bank	400	3.89
61	Credit Agencies Other Than Banks	230	4.50
612	Savings And Loan Associations	20	4.08
62	Security, Commodity Brokers And Services	1070	14.62
621	Security Brokers And Dealers	670	13.48
628	Security And Commodity Services	400	17.62
63	Insurance Carriers	2100	4.76
631	Life Insurance	1360	5.43
632	Accident And Health Insurance	110	2.75
64	Insurance Agents, Brokers And Service	860	7.18
641	Insurance Agents, Brokers And Service	860	7.17

Occupational Profile Of Secretaries In Non - Manufacturing Industries in Massachusetts

SIC Code	Industry	Number of Secretaries	Percent Employment In Industry
67	Holding And Over Investment Companies	230	16.55
672	Investment Companies	120	17.91
70	Hotels, Tourist Courts, and Motels	150	0.86
722	Photographic Studios	60	5.40
79 except 791,793	Miscellaneous Amusement Recreation Services	60	0.54
81	Legal Services	4240	44.87
89	Miscellaneous Services	2300	7.66
891	Engineering And Architectural Services	1340	7.82

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Occupational Profile of Secretaries in Wholesale and Retail Trade Industries in Massachusetts

Reference Date: June 1976
Sample: 3634 Employers with Total Employment of 164,205

SIC Code	Industry	Number of Secretaries	Percent Employment In Industry
502	Wholesale Furniture and Home Furnishings	130	4.10
508	Wholesale Machinery, Equipment and Supplies	810	3.95
518	Wholesale Beer, Wine, and Distilled Alcoholic Beverages	50	1.38
521	Retail Lumber and Other Building Materials	100	1.33
531	Department Stores	290	0.58

Occupational Profile of Secretaries in Trucking, Warehousing, and Air Transportation Industries in Massachusetts

Reference date: June 1976

42	Motor Freight Transportation & Warehousing	590	2.26
45	Transportation by Air	200	2.65

Source: Occupation/Industry Research Dept.

OCCUPATIONAL PROFILE OF TYPISTS IN MANUFACTURING INDUSTRIES IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department

SAMPLE: 3150 firms with total employment of 559,244

REFERENCE DATE: April, May, June 1977

SIC CODE		INDUSTRY	NUMBER OF TYPISTS	PERCENT EMPLOYMENT IN INDUSTRY
20		Food and Kindred Products	20	0.07
	208	Beverages	20	0.65
22		Textile Mill Products	100	0.36
	225	Knitting Mills	40	0.63
25		Furniture and Fixtures	30	0.36
	251	Household Furniture	20	0.30
26		Paper and Allied Products	100	0.34
	262	Paper Mills, except building Paper Mills	20	0.32
	277	Greeting Card Publishing	10	0.73
	279	Printing Trade Services	20	1.96
	301	Tires and Inner Tubes	40	1.72
	307	Miscellaneous Plastics Products	40	0.20
31		Leather and Leather Products	100	0.43
	314	Footwear, except Rubber	80	0.55
	329	Abrasive, Asbestos, and Misc. Non Metalic Mineral Products	50	0.79
34		Fabricated Metal Products (except Machinery and Transportation Equipment)	270	0.53
	342	Cutlery Handtools, and General Hardware	70	0.54
	347	Metal Services, N.E.C.	10	0.26
	351	Engines and Turbines	30	0.48
	366	Communications Equipment	170	0.69
	372	Aircrafts and Parts	40	0.48

SIC CODE		INDUSTRY	TYPISTS	EMPLOYMENT IN INDUSTRY
38		Scientific Instruments	530	1.04
	382	Measuring and Controlling Instruments	350	2.10
39		Miscellaneous Manufacturing Instruments	140	0.56
	391	Jewelry, Silverware, and Plated Ware	60	0.75
	394	Toy and Sporting Goods	50	0.70

OCCUPATIONAL PROFILE OF TYPISTS
IN SELECTED NONMANUFACTURING INDUSTRIES IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department
SAMPLE: 3144 firms with total employment of 162,652
REFERENCE DATE: June, 1973

SIC CODE		INDUSTRY	NUMBER OF TYPISTS	PERCENT EMPLOYMENT IN INDUSTR
41		Local and Interurban Passenger Transit	10	0.14
47		Transportation Services	120	3.13
49*		Electric and Gas Services	70	0.37
60		Banking	1190	2.76
	602	Commercial and Stock Savings Bank	760	2.43
	603	Mutual Savings Bank	330	3.21
61		Credit Agencies Other than Banks	260	5.09
62		Security, Commodity Brokers and Services	180	2.46
	621	Security Brokers and Dealers	110	2.21
	628	Security and Commodity Services	80	3.52
63		Insurance Carriers	1800	4.08
	631	Life Insurance	790	3.15
	632	Accident and Health Insurance	110	2.75
64		Insurance Agents, Brokers and Service	610	5.09
67		Holding and Other Investment Companies	30	2.16
70		Hotels, Tourist Courts, and Motels	40	0.23
79**		Misc. Amusement, Recreation Services	20	0.18
81		Legal Services	220	2.33
89		Miscellaneous Services	810	2.70
	891	Engineering and Architectural Services	320	1.86

* except 494, 495, 497

** except 791, 793

OCCUPATIONAL PROFILE OF TYPISTS
IN SELECTED INDUSTRIES IN WHOLESALE AND RETAIL TRADE IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department

SAMPLE: 3634 firms with total employment of 164,205

REFERENCE DATE: June 1976

SIC CODE	INDUSTRY	NUMBER OF TYPIST	PERCENT EMPLOYMENT IN INDUSTRY
502	Wholesale Furniture and Home Furnishings	60	1.89
508	Wholesale Machinery, Equipment, and Supplies	290	1.41
518	Wholesale Beer, Wine, and Distilled Alcoholic Beverages	20	0.55
519	Miscellaneous Nondurable Wholesale Goods	90	0.93
531	Department Stores	200	0.40

IN SELECTED MANUFACTURING INDUSTRIES IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department
SAMPLE: 3150 firms with total employment of 315,807
REFERENCE DATE: April, May, June 1977 .

SIC CODE		INDUSTRY	NUMBER OF BOOKKEEPERS, HAND	PERCENT EMPLOYMENT IN INDUSTRY
20		Food and Kindred Products	260	0.88
	201	Meat Products	40	1.48
	208	Beverages	20	0.65
	209	Misc. Food and Kindred Products	60	1.17
22		Textile Mill Products	70	0.25
	225	Knitting Mills	20	0.32
	229	Misc. Textile Goods	10	0.19
	238	Misc. Apparel and Accessories	20	0.65
25		Furniture and Fixtures	90	1.08
	251	Household Furniture	60	0.89
26		Paper and Allied Products	90	0.31
	262	Paper Mills, Except Building	10	0.16
	264	Paper Mills, Misc. Converted Paper Products	40	0.31
	279	Printing Trade Services	10	0.98
	307	Misc. Plastics Products	50	0.25
31		Leather and Leather Products	160	0.68
	313	Boot and Shoe Cut Stock and Findings	40	1.48
	314	Footwear Except Rubber	60	0.41
	317	Handbags and Other Personal Leather Goods	10	0.39
	321,322, 323	Glass and Glassware	20	1.21
	324,325 326,327 328,329	Cement and Misc. Nonmetallic Mineral Products	90	0.94
	327	Concrete, Gypsum, and Plaster Products	70	2.90

SIC CODE		INDUSTRY	BOOKKEEPERS, HAND	EMPLOYMENT IN INDUSTRY
34		Fabricated Metal Products	370	0.72
	347	Metal Services N.E.C.	60	1.55
38		Scientific Instruments	160	0.31
39		Misc. Manufacturing Industries	150	0.60
	391	Jewelry, Silverware, and Plated Ware	40	0.50

OCCUPATIONAL PROFILE OF BOOKKEEPERS IN SELECTED NONMANUFACTURING INDUSTRIES IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department
SAMPLE: 3144 firms with total employment of 162,652
REFERENCE DATE: June 1973

SIC CODE		INDUSTRY	NUMBER OF BOOKKEEPERS, HAND	PERCENT EMPLOYMENT IN INDUSTRY
41		Local and Interurban Passenger Transit	10	0.14
	412	Taxicabs	30	0.45
	415	School Buses	10	0.31
47		Transportation Services	210	5.47
	483	Radio and Television Broadcasting	30	1.00
49*		Electric and Gas Services	140	0.75
60		Banking	730	1.69
	602	Commercial and Stock Savings Banks	470	1.50
	603	Mutual Savings Bank	230	2.24
61		Credit Agencies Other Than Banks	260	5.09
	612	Savings and Loan Associations	10	2.04
62		Security, Commodity Brokers and Services	90	1.23
	621	Security Brokers and Dealers	40	0.80
	628	Security and Commodity Services	60	2.64
63		Insurance Carriers	80	0.18
	631	Life Insurance	40	0.15
64		Insurance Agents, Brokers, and Service	80	0.67
67		Holding and Other Investment Companies	100	7.19

* except 494, 495, 497

SIC CODE	INDUSTRY	BOOKKEEPERS, HAND	EMPLOYMENT IN INDUSTRY
70	Hotels, Tourist Courts, and Motels	50	0.29
722	Photographic Studios	10	0.90
79*	Misc. Amusement, Recreation Services	90	0.81
81	Legal Services	200	2.12
89	Miscellaneous Services	250	0.83
891	Engineering, Architectural Services	70	0.40

OCCUPATIONAL PROFILE OF BOOKKEEPERS IN SELECTED INDUSTRIES IN WHOLESALE AND RETAIL TRADE IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department
SAMPLE: 3634 firms with total employment of 164,205
REFERENCE DATE: June 1976

SIC CODE	INDUSTRY	NUMBER OF BOOKKEEPERS, HAND	PERCENT EMPLOYMENT IN INDUSTRY
502	Wholesale Furniture and Home Furnishings	100	3.15
508	Wholesale Machinery, Equipment and Supplies	520	2.53
518	Wholesale Beer, Wine, and Distilled Alcoholic Beverages	60	1.66
519	Misc. Nondurable Wholesale Goods	440	4.57
521	Retail Lumber and Other Building Materials	300	4.00
531	Department Stores	30	0.06
565	Family Clothing Stores	100	1.67
581	Eating and Drinking Places	1840	1.49

OCCUPATIONAL PROFILE OF BOOKKEEPERS IN MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING AND TRANSPORTATION BY AIR IN MASSACHUSETTS

SOURCE: Occupation/Industry Research Department
SAMPLE: 441 firms with total employment of 15,610
REFERENCE DATE: June, 1976

SIC CODE	INDUSTRY	NUMBER OF BOOKKEEPERS, HAND	PERCENT EMPLOYMENT IN INDUSTRY
42	Motor Freight Transportation and Warehousing	430	1.64

*except 791 - 793

VIII. Individuals in Need of Manpower Services

Unemployment declined from an average of 30,100 in 1975 (the recession year) to 15,400 in Fiscal Year 1978, and is expected to decline further to 15;300 in Fiscal Year 1979, but climb back up to 17,200 in 1980. During the recovery period, it was expected that most of the unemployed unskilled workers would find jobs, and did. However, during this period of recovery, the percentage of unskilled workers, many of whom in need of employment and training services, rose. This need will prevail throughout FY 1980 when the rate of unemployment is expected to go up to 6.0 percent.

It should be noted from Table I that the rate of unemployment will still remain higher among nonwhites than whites, with nonwhite teenagers registering the highest rates.

Table VII estimates 4,880 or 28.4 percent of the unemployed (17,200) in FY 1980 will be long-term, and 53,120 different individuals will be unemployed during the year, many of whom will need manpower services.

Table VIIB shows that some 28,920 persons 18 years and older living in this labor market area will be economically disadvantaged in Fiscal Year 1980, also about 10,350 will be employed part-time for economic reasons.

Table VII
Additional Unemployment Projections
Fiscal Year 1980

Springfield-Chicopee-Holyoke Labor Market Area

	Unemployment	Unemployment Rate	Long-Term Unemployment	Number of Different Individuals Unemployed During Year
Total	17,200	6.0	4,880	53,120
White Male	7,100	4.7	2,250	22,760
White Female	7,600	6.4	1,760	22,800
Nonwhite Male	1,280	13.3	510	3,870
Nonwhite Female	1,220	15.6	360	3,690

Table VIIA
Additional Unemployment Projections
Fiscal Year 1980

Hampden County

	Unemployment	Unemployment Rate	Long-Term Unemployment	Number of Different Individuals Unemployed During Year
Total	14,040	6.2	3,990	43,380
White Male	5,680	4.7	1,820	18,210
While Female	6,140	6.8	1,400	18,420
Nonwhite Male	1,110	13.1	440	3,370
Nonwhite Female	1,110	15.6	330	3,380

Table VIIB
Additional Planning Data Projections
Fiscal Year 1980

Springfield-Chicopee-Holyoke Labor Market Area

	Employed Part-Time for Economic Reasons
Total	10,350
White Male	4,550
White Female	5,050
Nonwhite Male	360
Nonwhite Female	390

	Economically Disadvantaged 18 Years and Over
Total	28,920
White	25,600
Black	2,180
Other	100
Spanish	1,040

IX. Employment Training Programs

A. The Work Incentive Program (WIN)

This program is administered by the Division of Employment Security with referrals by the Welfare Department. The program concentrates on welfare recipients covered by aid to families with dependent children (AFDC). The WIN program provides for the rehabilitation of the welfare clients, rather than a commitment to long term maintenance. Its goal is to move men, women and out-of-school youth, age 16 or older from the welfare rolls into meaningful, permanent, employment. The program is represented by two teams in Springfield and one in both Holyoke and Northampton. The accumulative record of these four teams is shown in the following table:

Table VIII
WIN Team Data
Springfield-Holyoke-Northampton

	10/ 1/76 to 3/13/77	10/ 1/77 to 3/31/78	10/ 1/78 to 3/31/78
Registrants	13,174*	15,119*	15,380*
New Registrants	2,978	3,592	1,955
Appraisals	2,577	2,018	1,604
Institutional Training	107	76	72
Work Experience	37	63	20
Suspense	86	226	154
On-The-Job-Training	34	67	45
Entered Unsubsidized Employment Expected to Last 30 Days or More	474	539	802

* Includes carry-over from prior fiscal year

Note: A change in the definition of "Institutional Training" has resulted in a lesser number reported in that component.

B. CETA

The Comprehensive Employment and Training Act of 1973 (CETA) was passed with the purpose of providing job training and employment opportunities for economically disadvantaged, unemployed and underemployed persons and to assure that training and other services lead to maximum employment opportunities. Under CETA the primary responsibility for manpower training is on the prime sponsors, cities with a population of 100,000 or more, and consortiums, groups of smaller cities and towns. The Hampden County Manpower Consortium in Springfield serves the Hampden County Area.

In Hampden County, the initial thrust of the CETA program was to address the problem of soaring minority joblessness. However, the 1975 economic recession aggravated the unemployment condition, and CETA was expanded to include semiskilled workers.

Under Title II-B, the consortium appropriates money to skill centers in Springfield and Holyoke, which provide prevocational services and occupational training. This training consists of:

1. Clerical
2. Machine Occupations
3. Food Service
4. Nursing Assistant
5. Graphic Cluster
6. Electrical Test Technician
7. Electronic Bench Assembly
8. Auto Mechanics
9. Drafting

Not only are jobs available in these areas, but they can be filled by economically disadvantaged workers, especially upon completion of training in:

1. Prevocational Training
2. Skills Conservation
3. Classroom Training
4. Work Experience
5. On-The-Job Training
6. Job Search

Title II-B also funds work experience and on-the-job training programs.

Title II-D provides for jobs in state and municipal offices and nonprofit agencies for the disadvantaged, unemployed and underemployed. Eligibility certifications and application processing is under the direction of the Massachusetts Division of Employment Security.

ELIGIBILITY FOR PARTICIPATION IN TITLE VI PSE

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Resident of the prime sponsor's jurisdiction; and
3. A member of family which has been receiving Public Assistance for ten of the last twelve weeks; or
   Unemployed at time of enrollment; and
   Unemployed at least 10 out of 12 weeks prior to enrollment; and
   Have a family income which does not exceed 100% of the lower living standard income level based on the three months prior to application.
4. Not have voluntarily terminated, without good cause, last full-time employment during past six months.

Table IX is a summary of persons placed in CETA programs and those placed in unsubsidized employment upon completion of training by the Hampden County Manpower Consortium in 1977.

Table IX

Title	Total Terminations	Placed in Jobs (Unsubsidized) Employment)
I	1,958	907
II	429	168
III YETP	474	106
YCCIP	21	5
VI	2,336	520

Veterans who served during the Vietnam-era (8;5/64-5/7/75) and served 180+ days on active duty or were discharged for service connected disability are immediately eligible for both old and new Title VI provided they have not had full-time permanent employment between their date of discharge and application for title VI.

The current significant segments are:

1. Welfare Recipient
2. Under 22
3. Handicapped
4. Criminal Justice
5. Female
6. Limited English Speaking
7. Economically Disadvantaged
8. Veterans
9. Blacks
10. Hispanics
11. Other Nonwhite
12. Migrant Seasonal Farmworkers

Table X

Characteristics of Persons Served by CETA Programs

Characteristics	Title I	Title II	Title VI	Total
Veterans	182	169	1,081	1,432
Welfare Recipient	633	122	665	1,420
Handicapped Persons	97	36	193	326
Age 22 and Under	941	195	848	1,984
Female	1,074	374	1,232	2,680
Criminal Justice	339	55	142	536
Economically Disadvantaged	2,283	660	3,818	6,761
Limited English Speaking	370	18	47	435
Blacks	632	168	921	1,721
Hispanics	625	68	349	1,042
Migrant Seasonal Farmworker	45	2	11	58
Other Nonwhite	340	22	147	509

Title II B

Formerly known as Title I.
Services include: Classroom training, work experience, OJT, and services to participants (counseling, supportive services, etc.)

ELIGIBILITY FOR PARTICIPATION IN TITLE II B

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Economically disadvantaged; and
3. Unemployed, or
   Underemployed, or
   In-School Youth

Title II C

New Programs: Upgrading and Retraining Programs designed to offer additional opportunities to those locked into low paying, low-skill, dead-end jobs.
Services include: classroom training, OJT, supportive services.

ELIGIBILITY FOR PARTICIPATION IN TITLE II C UPGRADING

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and
2. Operating at less than full skill potential; and
3. Working for at least the prior six months with the same employer in an entry level, unskilled or semi-skilled position, or a position with little or no advancement opportunity in a normal promotional line.

ELIGIBILITY FOR PARTICIPATION IN TITLE II C RETRAINING

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and

2. Have received a bona fide notice of impending layoff within the last six months; and

3. Have been determined by Prime Sponsor as having little opportunity to be reemployed in same or equivalent occupation or skill level within the labor market area.

TITLE II D PSE Formerly known as Title II - PSE

Services include: public service employment, classroom training, and services to participants (counseling. job development, etc.)

ELIGIBILITY FOR PARTICIPATION IN TITLE II D PSE

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and

2. A resident of the prime sponsor's jurisdiction; and

3. Economically disadvantaged, unemployed at time of enrollment, and unemployed during 15 of the past 20 weeks, or

   A member of a family which is receiving Public Assistance; and

4. Not have voluntarily terminated, without good cause, last full-time employment during past six months.

Title IV A Formerly known as Title III C
Programs for youth under Youth Community Conservation and Improvements Projects (YCCIP) and Youth Employment and Training Programs (YETP) are designed to provide classroom training, OJT, work experience and services to participants.

ELIGIBILITY FOR PARTICIPATION IN YCCIP

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and

2. Aged 16 through 19 years, inclusive; and

3. Unemployed; and

4. Economically disadvantaged; and

5. Has not had previous enrollments in YCCIP exceeding 12 months.

ELIGIBILITY FOR PARTICIPATION IN YETP

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization Service; and

2. Aged 16 through 21 years inclusive; and

3. A member of a family with total family income at or below 85 percent of lower living standard income level; and

4. Unemployed; or
   Underemployed; or
   In School

TITLE IV C Summer Youth Employment Program
Services include: work experience, remedial education, assessment, classroom training and services to participants.

ELIGIBILITY FOR PARTICIPATION IN SUMMER YOUTH EMPLOYMENT PROGRAM

1. United States citizen or alien who is permitted to accept permanent employment by Immigration and Naturalization service; and

2. Economically Disadvantaged; and

3. Aged 14 through 21 years; inclusive

TITLE VI PSE Formerly called Titles VI and VI B
Services include: public service employment, training, and services to participants (counseling, job development etc.)

Table XI

Total Served

	SYEP*	YCCIP*	YETP*	STIP*
Veterans	1	-	7	19
Welfare	1,879	14	322	10
Handicapped	43	0	19	2
Under 22	2,925	43	753	48
Female	1,446	21	414	6
Criminal Justice	52	0	0	8
Economically Disadvantaged	2,929	37	688	93
Limited English Speaking	61	0	26	4
Blacks	1,071	25	228	13
Hispanics	576	17	162	10
Migrant Seasonal Farmworkers	4	1	1	2
Other Nonwhite	2	0	1	1

* SYEP Summer Youth Employment Program
YCCIP Youth Community Conservation & Improvements Projects
YETP Youth Employment Training Program
STIP Skill Training Improvement Program

APPENDIX

The following tables include characteristics of job matching service center applicants and the insured unemployed by significant segment categories. This information may be useful for CETA planners.

CHARACTERISTICS OF THE ACTIVE FILE - RESIDENTS OF HAMPDEN COUNTY

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL	FEMALE	ECONOMICALLY DISADVANTAGED	HANDICAPPED	MINORITY GROUP TOTAL	MINORITY GROUP BLACK NOT HISPANIC	MINORITY GROUP HISPANIC	WELFARE	VETERAN TOTAL	VETERAN VIETNAM ERA	VETERAN SPECIAL VET	ELIG CLAIMANT	SEASONAL FARM-WORKER	AGE UNDER 22	AGE 45 OR OLDER
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
93010	AGE	17801	10553	12224	809	5835	2876	2904	11338	2115	481	169	5068	194	3382	2797
93015	15 AND UNDER	54	25	18	0	20	10	10	14	2	1	0	3	0	54	0
93017	16-17	712	311	441	2	247	86	159	390	2	0	0	18	5	712	0
93018	18-19	1286	595	697	13	393	173	219	566	29	0	0	245	17	1286	0
93020	20-21	1330	584	691	12	408	201	206	590	98	10	0	472	19	1330	0
93025	22-24	1843	847	992	51	600	326	268	869	250	102	10	752	27	0	0
93030	25-29	2983	1605	1959	144	984	562	414	1820	418	161	47	1003	33	0	0
93035	30-34	2918	1947	2299	134	1027	495	520	2195	393	144	79	747	34	0	0
93037	35-39	2324	1711	1944	93	816	379	427	1888	187	27	13	512	25	0	0
93040	40-44	1554	1112	1266	89	537	263	270	1222	174	14	8	373	9	0	0
93045	45-54	1895	1283	1422	163	576	289	278	1345	359	19	11	560	19	0	1895
93050	55-64	811	484	462	103	206	81	123	413	189	3	1	336	6	0	811
93055	65 AND OVER	91	49	33	5	21	11	10	26	14	0	0	47	0	0	91
93060	SEX	17801	-	12224	809	5835	2876	2904	11338	2115	481	169	5068	194	3382	2797
93065	MALE	7248	0	3692	570	2149	926	1208	3098	2008	464	168	3060	164	1867	981
93070	FEMALE	10553	-	8532	239	3686	1950	1696	8240	107	17	1	2008	30	1515	1816
93075	HIGHEST SCHOOL GRADE	17801	10553	12224	809	5835	2876	2904	11338	2115	481	169	5068	194	3382	2797
93080	0-7	1979	1303	1732	93	1452	163	1278	1679	49	2	0	340	102	138	60
93085	8-11	7119	4122	5554	281	2507	1259	1232	5197	565	66	18	1429	73	2099	97
93090	12	6195	3947	3930	284	1436	1095	319	3623	951	250	77	2204	18	860	88
93095	OVER 12	2508	1181	1008	151	440	359	75	839	550	163	74	1095	1	285	32
93100	RESIDENCE	17801	10553	12224	809	5835	2876	2904	11338	2115	481	169	5068	194	3382	2797
93105	URBAN	17353	10358	12051	777	5829	2874	2902	11215	2022	449	158	4881	194	3269	274
93110	RURAL	448	195	173	32	6	2	2	123	93	32	11	187	0	113	4
93115	RACE/ETHNIC	17801	10553	12224	809	5835	2876	2904	11338	2115	481	169	5068	194	3382	2797
93120	WHITE (NOT HISPANIC)	11960	6862	7495	610	0	0	0	6834	1775	393	140	3917	14	2314	1991
93125	BLACK (NOT HISPANIC)	2876	1950	2235	106	2876	-	0	2136	269	71	24	597	3	470	381
93130	HISPANIC	2904	1696	2449	91	2904	0	-	2328	68	16	5	541	177	594	411
93135	AMERICAN INDIAN & ALASKAN NATIVE	13	7	13	1	13	0	0	11	3	1	0	2	0	2	1
93140	ASIAN & PACIFIC ISL.	42	33	28	0	42	0	0	26	0	0	0	9	0	2	1
93145	INA	6	5	4	1	0	0	0	3	0	0	0	2	0	0	
93150	ELIGIBLE CLAIMANT	5068	2008	1770	283	1149	597	541	1384	982	215	84	-	145	738	94
93155	STATE	4751	1939	1655	271	1009	556	442	1297	868	186	78	4751	80	693	91
93160	VETERAN	2115	107	935	371	340	269	68	694	-	481	169	982	4	131	56
93165	RECENTLY SEPARATED	571	44	219	64	116	90	26	134	571	250	36	279	1	114	1
93170	VIETNAM ERA	244	13	71	35	52	42	10	39	244	-	30	106	0	11	
93175	SPECIAL VETERAN	169	1	50	45	29	24	5	22	169	169	-	84	0	0	1
93180	DISABLED	179	11	58	179	28	22	5	39	179	58	35	85	0	1	6
93185	HANDICAPPED	809	239	509	-	198	106	91	407	371	91	45	283	6	27	27
93190	ECONOMICALLY DISADVANTAGED	12224	-	12224	509	4725	2235	2449	11337	935	133	50	1770	49	1847	191
93195	FOOD STAMP WORK REQ.	283	118	184	18	88	43	45	106	43	8	1	80	5	60	5
93200	WELFARE	11338	8240	11337	407	4501	2136	2328	-	694	59	22	1384	32	1560	178

COUNTY 013

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 04/30/79

TABLE 164

SELECTED CHARACTERISTICS OF INSURED UNEMPLOYED
SPRINGFIELD CETA

DECEMBER 1978

	ALL PROGRAMS		PRO-GRAMS	PSE
	NUMBER	PERCENT	NUMBER	NUMBER
TOTAL	4098	100.0	3621	477
AGE				
UNDER 20	-	-	-	-
UNDER 25	877	21.4	750	126
25 - 34	1114	27.2	943	171
35 - 44	600	14.6	524	75
45 - 54	584	14.3	527	57
55 - 64	570	13.9	533	37
65 & OVER	332	8.1	324	8
I.N.A.	22	.5	19	3
SEX				
MEN	2487	60.7	2168	319
WOMEN	1610	39.3	1452	158
I.N.A.	-	-	-	-
ETHNIC GROUP				
WHITE	3739	91.2	3369	370
NON-WHITE	356	8.7	252	104
I.N.A.	3	.1	-	3
SPANISH SURNAME	135	3.3	107	27
OCCUPATION				
PROF.,TECH.,MGT	739	18.0	587	153
CLERICAL/SALES	797	19.4	720	78
SERVICES	564	13.8	506	58
FARM,FISH,FOR.	53	1.3	25	27
PROCESSING	85	2.1	83	3
MACHINE TRADES	539	13.2	520	19
BENCH WORK	262	6.4	252	10
STRUCTURAL	528	12.9	438	89
MISC. WORK	529	12.9	488	41
I.N.A.	3	.1	3	-
RECENT DURATION				
0-9 WEEKS	2153	52.5	1925	229
10-19 WEEKS	1286	31.4	1105	181
20-29 WEEKS	648	15.8	580	68
30 + WEEKS	11	.3	11	-

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TABLE 164
CONTINUED -1

	ALL PROGRAMS		PRO-GRAMS	PSF
	NUMBER	PERCENT	NUMBER	NUMBER
INDUSTRY ATTACH.				
MANUFACTURING	1127	27.5	1119	7
CON. CONSTRUCT	229	5.6	224	5
TRAN./UTIL.	176	4.3	176	-
WHOL/RET.TRADE	696	17.0	693	3
FIN/INS/R.E.	110	2.7	104	5
SERVICES	806	19.7	698	108
GOVERNMENTS	827	20.2	486	341
OTHERS	28	.7	21	7
I.N.A.	100	2.4	100	-
AVE. WEEKLY WAGE				
UNDER $100	625	15.3	606	19
$100 - $149	974	23.8	820	154
$150 - $199	1046	25.5	778	268
$200 - $249	557	13.6	539	18
$250 - $299	351	8.6	341	10
$300 OR MORE	414	10.1	414	-
I.N.A.	130	3.2	122	8
SEPARATION REASON				
LAYOFF	3492	85.2	3022	469
QUIT VOL. RET.	32	.8	32	-
QUIT PREGNANCY	10	.2	10	-
QUIT OTHER	136	3.3	136	-
DISCHARGES	187	4.6	182	5
LABOR DISPUTE	7	.2	7	-
OTHER/INA	234	5.7	231	2

CHARACTERISTICS OF THE ACTIVE FILE - RESIDENTS OF HAMPSHIRE COUNTY

ITEM NO	CHARACTERISTICS OF APPLICANTS	TOTAL	FEMALE	ECONOMICALLY DISADVANTAGED	HANDICAPPED	MINORITY GROUP			WELFARE	VETERAN			ELIG CLAIMANT	SEASONAL FARMWORKER	AGE	
						TOTAL	BLACK NOT HISPANIC	HISPANIC		TOTAL	VIETNAM ERA	SPECIAL VET			UNDER 22	45 OR OLDER
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
93010	AGE	2371	1212	1356	104	151	68	73	1051	385	113	27	771	0	444	277
93015	15 AND UNDER	15	8	3	0	0	0	0	0	0	0	0	0	0	15	0
93017	16-17	98	42	36	0	3	3	0	18	0	0	0	2	0	98	0
93018	18-19	156	66	58	1	6	2	4	19	7	1	0	35	0	156	0
93020	20-21	175	67	62	5	11	3	7	34	18	1	0	64	0	175	0
93025	22-24	313	125	146	10	20	9	10	76	53	23	2	123	0	0	0
93030	25-29	558	276	313	13	48	23	21	256	79	40	6	206	0	0	0
93035	30-34	407	237	293	23	23	9	11	257	79	35	16	121	0	0	0
93037	35-39	223	148	169	16	18	11	7	152	33	9	1	60	0	0	0
93040	40-44	149	92	122	10	13	6	6	115	36	1	1	39	0	0	0
93045	45-54	178	103	107	14	8	2	6	93	49	3	1	70	0	0	178
93050	55-64	91	43	45	12	1	0	1	30	31	0	0	46	0	0	91
93055	65 AND OVER	8	5	2	0	0	0	0	1	0	0	0	5	0	0	8
93060	SEX	2371	-	1356	104	151	68	73	1051	385	113	27	771	0	444	277
93065	MALE	1159	0	548	74	86	35	47	369	366	112	27	470	0	261	126
93070	FEMALE	1212	-	808	30	65	33	26	682	19	1	0	301	0	183	151
93075	HIGHEST SCHOOL GRADE	2371	1212	1356	104	151	68	73	1051	385	113	27	771	0	444	277
93080	0-7	64	31	49	8	18	2	16	43	4	0	0	13	0	7	17
93085	8-11	616	309	423	27	36	12	24	338	93	16	5	131	0	210	97
93090	12	777	419	447	45	32	14	14	370	154	46	8	288	0	139	91
93095	OVER 12	914	453	437	24	65	40	19	300	134	51	14	339	0	88	72
93100	RESIDENCE	2371	1212	1356	104	151	68	73	1051	385	113	27	771	0	444	277
93105	URBAN	1855	991	1139	74	140	62	69	893	290	83	21	548	0	300	208
93110	RURAL	516	221	217	30	11	6	4	158	95	30	6	223	0	144	69
93115	RACE/ETHNIC	2371	1212	1356	104	151	68	73	1051	385	113	27	771	0	444	277
93120	WHITE (NOT HISPANIC)	2219	1146	1239	99	0	0	0	962	366	107	27	736	0	424	267
93125	BLACK (NOT HISPANIC)	68	33	53	2	68	-	0	36	10	4	0	15	0	8	2
93130	HISPANIC	73	26	58	2	73	0	-	48	7	1	0	17	0	11	7
93135	AMERICAN INDIAN & ALASKAN NATIVE	3	2	2	0	3	0	0	2	0	0	0	2	0	0	0
93140	ASIAN & PACIFIC ISL.	7	4	4	1	7	0	0	3	2	1	0	1	0	1	0
93145	INA	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
93150	ELIGIBLE CLAIMANT	771	301	234	42	35	15	17	146	167	53	13	-	0	101	121
93155	STATE	734	290	221	42	33	15	16	136	141	41	12	734	0	98	118
93160	VETERAN	385	19	189	48	19	10	7	139	-	113	27	167	0	25	80
93165	RECENTLY SEPARATED	106	9	39	6	6	1	4	25	106	53	7	51	0	16	0
93170	VIETNAM ERA	53	1	15	3	2	0	1	11	53	-	7	25	0	2	0
93175	SPECIAL VETERAN	27	0	10	8	0	0	0	6	27	27	-	13	0	0	1
93180	DISABLED	25	0	12	25	1	1	0	6	25	8	4	19	0	1	8
93185	HANDICAPPED	104	30	65	-	5	2	2	46	48	16	8	42	0	6	26
93190	ECONOMICALLY DISADVANTAGED	1356	-	1356	65	117	53	58	1042	189	32	10	234	0	159	154
93195	FOOD STAMP WORK REG.	34	16	19	4	1	1	0	10	5	3	1	11	0	6	9
93200	WELFARE	1051	682	1042	46	89	36	48	-	139	18	6	146	0	71	124

COUNTY 015

MONTHLY YEAR TO DATE
FOR PERIOD ENDING 04/30/79 PAGE 001

TABLE 177

SELECTED CHARACTERISTICS OF INSURED UNEMPLOYED
NORTHAMPTON CETA

DECEMBER 1978

	ALL PROGRAMS		PRO-GRAMS	PSE
	NUMBER	PERCENT	NUMBER	NUMBER
TOTAL	984	100.0	850	134
AGE				
UNDER 20	-	-	-	-
UNDER 25	221	22.5	194	27
25 - 34	353	35.9	288	65
35 - 44	131	13.3	115	16
45 - 54	95	9.7	82	14
55 - 64	101	10.3	90	11
65 & OVER	78	7.9	78	-
I.N.A.	4	.4	4	-
SEX				
MEN	607	61.7	515	92
WOMEN	377	38.3	335	42
I.N.A.	-	-	-	-
ETHNIC GROUP				
WHITE	971	98.7	841	130
NON-WHITE	13	1.3	9	4
I.N.A.	-	-	-	-
SPANISH SURNAME	-	-	-	-
OCCUPATION				
PROF.,TECH.,MGT	281	28.6	230	51
CLERICAL/SALES	151	15.3	135	16
SERVICES	127	12.9	115	11
FARM,FISH,FOR.	29	2.9	27	3
PROCESSING	13	1.3	13	-
MACHINE TRADES	111	11.3	109	2
BENCH WORK	39	4.0	36	3
STRUCTURAL	142	14.4	110	32
MISC. WORK	91	9.2	75	16
I.N.A.	-	-	-	-
RECENT DURATION				
0-9 WEEKS	526	53.5	469	58
10-19 WEEKS	307	31.2	266	41
20-29 WEEKS	146	14.8	113	34
30 + WEEKS	4	.4	2	2

TABLE 177
CONTINUED -1

	ALL PROGRAMS		PRO- GRAMS	PSE
	NUMBER	PERCENT	NUMBER	NUMBER
INDUSTRY ATTACH.				
MANUFACTURING	207	21.0	205	2
CON. CONSTRUCT	73	7.4	71	2
TRAN./UTIL.	32	3.3	32	-
WHOL/RET.TRADE	126	12.8	126	-
FIN/INS/R.E.	20	2.0	20	-
SERVICES	218	22.2	198	20
GOVERNMENTS	273	27.7	167	106
OTHERS	9	.9	9	-
I.N.A.	27	2.7	22	4
AVE. WEEKLY WAGE				
UNDER $100	155	15.8	142	13
$100 - $149	211	21.4	167	44
$150 - $199	235	23.9	173	62
$200 - $249	155	15.8	144	11
$250 - $299	77	7.8	75	2
$300 OR MORE	107	10.9	107	-
I.N.A.	44	4.5	42	2
SEPARATION REASON				
LAYOFF	806	81.9	671	134
QUIT VOL. RET.	4	.4	4	-
QUIT PREGNANCY	4	.4	4	-
QUIT OTHER	46	4.7	46	-
DISCHARGES	62	6.3	62	-
LABOR DISPUTE	-	-	-	-
OTHER/INA	61	6.2	61	-

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LABOR AREA RESEARCH PUBLICATION

Massachusetts Division of Employment Security

job market research

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THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Charles F. Hurley Building
Government Center, Boston, Ma. 02114

ANNUAL PLANNING INFORMATION REPORT
FISCAL YEAR 1981

SPRINGFIELD-CHICOPEE-HOLYOKE, MASSACHUSETTS LABOR MARKET AREA

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June 1980

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I. Highlights and Conclusions

The national recession of 1975 adversely affected just about every aspect of the Springfield-Chicopee-Holyoke Labor Market Area. Improvement in the national economy began in the last half of 1975. It was during this period that recovery was first visible in the local economy. Local recovery has continued to the present. By fiscal year 1978, the rate of unemployment had declined to 4.8 percent from a high of 10.5 percent in fiscal year 1975. A boom in consumer spending starting in late 1975, coupled with an upsurge in capital investment in 1978, spurred the recovery. The area is well known for its production of capital equipment. Progress in the local economy can be attributed to its excellent industrial bases, and the policy of promoting growth of industries by local public and private agencies working together. Development of industrial parks, shopping centers, and better roads are just a few examples of this combined effort.

Reasons given by firms expanding in this area are usually good highways, easy access to the airport (national and international flights), a sizeable labor pool and the excellent Hampden County Regional Skills Centers.

The area will soon have its second largest computer company. Data Terminal Systems of Maynard, a manufacturer of point-of-sale computer terminals and electronic cash registers, will build a plant in the West Springfield Industrial Park. The recent announcement by the firm brings to fruition the year-long efforts of the Chamber of Commerce-sponsored High Technology Task Force to attract firms now centered primarily in the Route 128 area surrounding Boston. There are prospects that other high technology companies will follow Data Terminal's lead.

A recent study of manufacturing and nonmanufacturing industries in this labor market area revealed that there should be little or no problems for skilled workers to obtain jobs in 1980, even though much of the hiring will be for replacement purposes rather than new growth. The unemployment rate is expected to rise to 6.4 percent in fiscal year 1981 and will be considered as substantial unemployment.

However, the percentage of the total unemployed made up of unskilled workers in need of employment and training services will increase considerably.

II. Description of Area

A. Definition of Area

Area Definition

Cities and Towns: The Labor Market Area is comprised of five cities and twenty-eight towns. The five cities are Springfield, Chicopee, Holyoke, Westfield all located in Hampden County, and Northampton in Hampshire County. The twenty-eight towns are Agawam, Brimfield, East Longmeadow, Granville, Hampden, Longmeadow, Ludlow, Monson, Montgomery, Palmer, Russell, Southwick, Wales, West Springfield, and Wilbraham in Hampden County, Amherst, Belchertown, Chesterfield, Easthampton, Granby, Hadley, Hatfield, Pelham, Southhampton, South Hadley, Westhampton, and Williamsburg in Hampshire County; Warren in Worcester County.

Boundaries: Northwest: Chesterfield, Westhampton in Hampshire County.

Southwest: Southampton, Montgomery, Russell and Granville in Hampden County.

Northeast: Pelham, Belchertown in Hampshire County.

Southeast: Warren in Worcester County; Palmer, Brimfield, and Wales in Hampden County.

North: Amherst, Hadley, Hatfield and Williamsburg in Hampshire County.

South: Southwick, Agawam, Longmeadow, East Longmeadow, Hampden and Monson in Hampden County (all along the Connecticut border).

Hampden County Manpower Consortium
The CETA agency for Hampden County.

Hampshire County Manpower Consortium.
The CETA agency for Hampshire County.

Land Area: The Springfield-Chicopee-Holyoke Labor Market Area based on the newly defined geographical boundaries has a total of 870.14 square miles of land area. The city of Westfield with a land area of 46.85 square miles is the largest among the five cities.

Other Geographical Features The area has several mountain ranges of which the most famous are Mount Tom and The Berkshire Hills. The Labor Market Area has a very large river basin, known as the Lower Pioneer Valley enclosed on both sides by scenic mountains which constitutes an extremely important natural resource area of the state. The Connecticut River, the largest in New England, flows through the heart of the area from north to south, while two of the largest tributaries, the Chicopee and Westfield Rivers, flow through the eastern and western sections of the Labor Market Area. The area has a number of reservoirs, lakes, and ponds and is rated as having an undeveloped tourism potential.

Civilian Labor Force	1979 Annual Average was 276,300
Nonfarm Wage and Salary Employment	1979 Annual Average of 233,500 was up 2,500 from 1978 Annual Average of 231,000
Ratio of Manufacturing to Nonfarm Wage and Salary Employment	1979 Annual Average in manufacturing of 67,400 was 28.9 percent of all nonfarm wage and salary employment and is an indication of the importance of manufacturing to the economy of the area.
Most Important Industries in Terms of Employment	Wholesale and retail trade; government; services; finance, insurance and real estate; fabricated metals; transportation, communication and utilities; nonelectrical machinery; paper; printing; contract construction; chemicals and transportation equipment.
Unemployment	1979 Annual Average 4.8 percent of the labor force compared to 5.8 percent for the United States.

B. Population and Labor Force Characteristics and Trends

A breakout of population and labor force in this labor market area by age, race, and sex, using data from the Lawrence- Berkeley Laboratory of the University of California derived from the 1970 Census, can be found in Table I. In recent years, a downward trend in population has been firmly established in this area. The population, which was estimated at 583,031 in the April 1970 census, apparently peaked in mid-1975 (State Census) at 597,400, and dropped to 589,400 (State estimate) in mid-1977. The rate of decline in population appears to be slowing down some but it should reach an estimated 577,200 by 1981.

Table I shows an estimated average unemployment rate of 6.4 percent for fiscal year 1981 in the labor market area, a considerable drop from the 10.5 percent in the recessionary fiscal year 1975. The 6.4 percent is dependent upon the slowing down in growth in the general economy in fiscal year 1981. Throughout the 1970's, the participation rate of women in the labor force increased steadily, and this trend is expected to continue well into the 1980's. Table I also demonstrates the high rate of unemployment which prevails amongst youths (16-24) in the area. This is especially noticeable among blacks and Spanish speaking youth who are migrating into the area and are facing many barriers to employment.

Table II is a similar breakout of population and labor force in Hampden County.

C. Commuting Patterns

Since a Labor Market Area is one in which the jobs are within commuting distance of the laborforce, the following transportation information should help workers traveling by automobile, bus, or train.

For the automobile driver, Map I shows the highways linking the many cities and towns in the Labor Market Area. Map II shows the main roads as they tie into the highways in the greater Springfield Area.

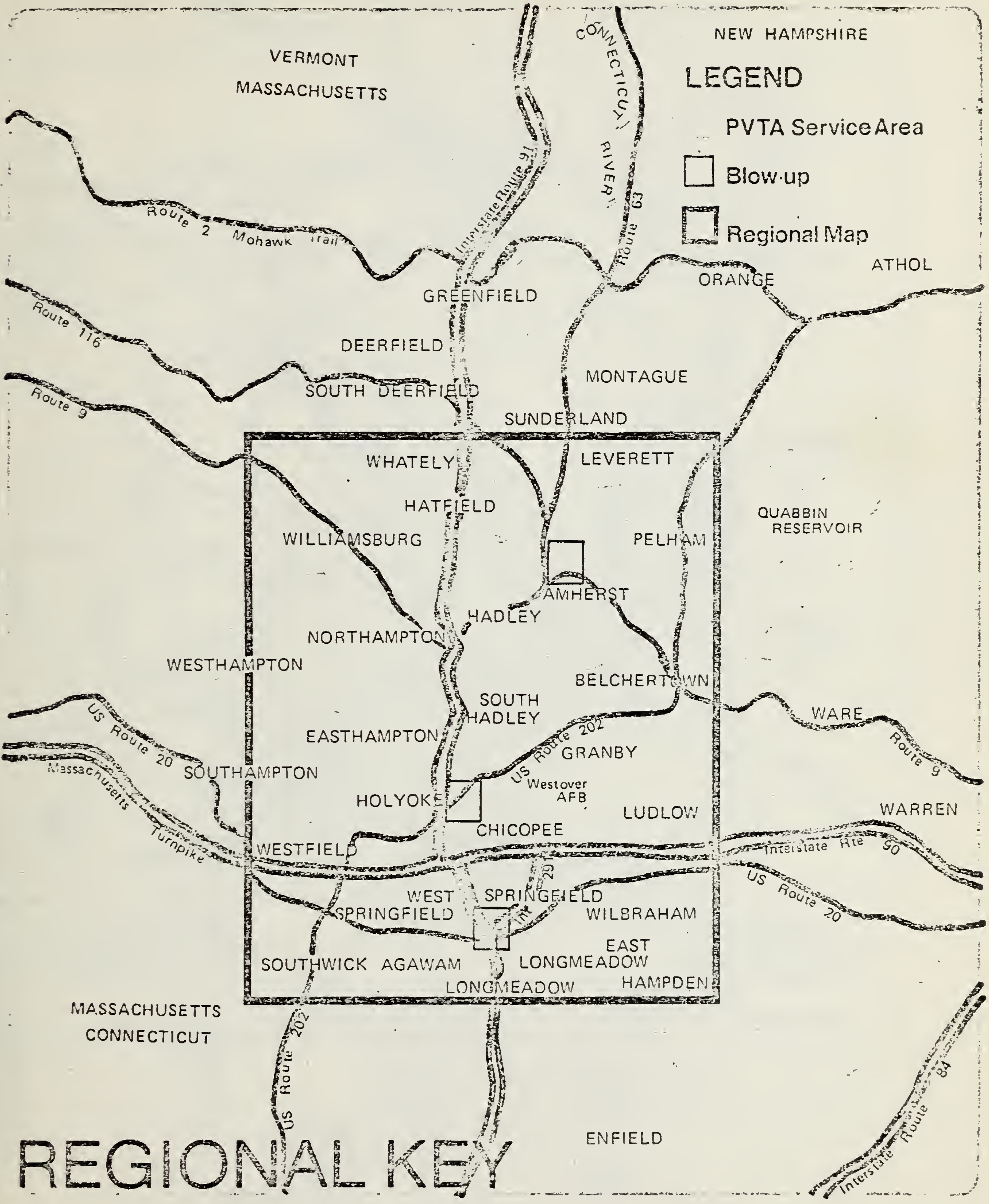
Map III helps the commuter traveling by bus or train to locate the proper terminal in Springfield, Holyoke, or Amherst. Page 10 and 11 lists the buses connecting most cities and towns throughout the area.

Table I Population & Labor Force Composition Projections
Fiscal Year 1981
Springfield-Chicopee-Holyoke LMA

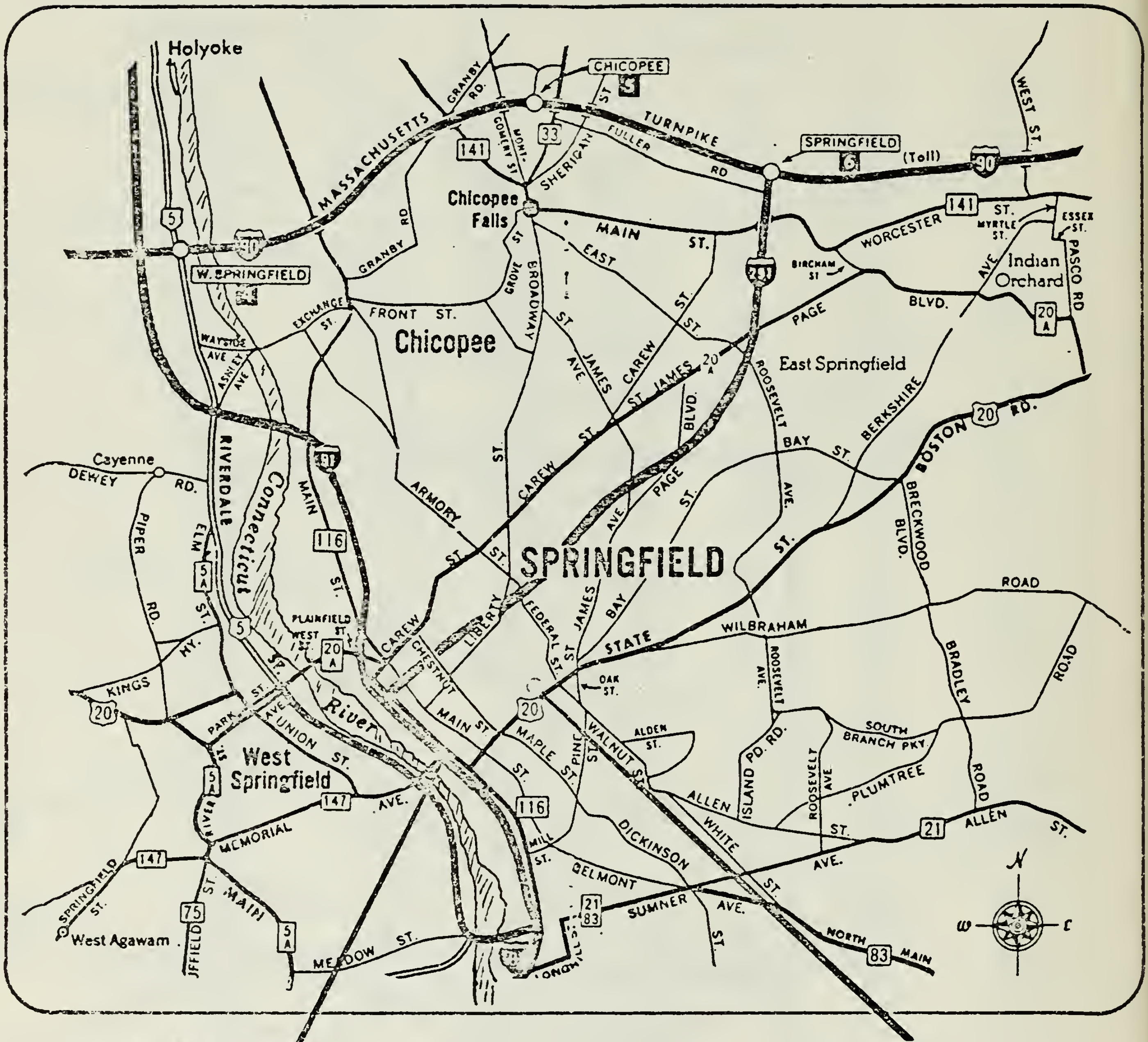
	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
Total Population	577,303					
16 years & older	442,825	274,300	256,800	17,500	6.4	61.9
White Male	189,731	136,169	129,837	6,332	4.6	71.8
16-17	11,857	7,244	6,715	529	7.3	61.1
18-19	11,857	6,264	5,636	628	10.0	52.8
20-24	28,938	20,674	19,307	1,367	6.6	71.4
25-34	30,325	27,066	25,811	1,255	4.6	89.3
35-44	25,205	22,669	21,996	673	3.0	89.9
45-64	55,883	43,847	42,374	1,471	3.4	78.5
65+	25,666	8,405	7,996	409	4.9	32.7
White Female	226,552	121,921	113,560	8,361	6.9	53.8
16-17	11,732	9,020	8,012	1,008	11.2	76.9
18-19	11,732	6,154	5,687	467	7.6	52.5
20-24	30,816	20,801	19,570	1,231	5.9	67.5
25-34	38,554	25,602	24,319	1,283	5.0	66.4
35-44	27,840	19,735	18,746	989	5.0	70.9
45-64	63,244	37,068	34,077	2,991	8.1	58.6
65+	42,634	3,541	3,149	392	11.1	8.3
Nonwhite Male	11,150	7,909	6,696	1,213	15.3	70.9
16-17	909	287	183	104	36.2	31.6
18-19	909	449	337	112	24.9	49.4
20-24	2,345	1,683	1,349	334	19.8	71.8
25-34	2,699	2,379	2,126	253	10.6	88.1
35-44	1,466	1,214	1,040	174	14.3	82.8
45-64	2,231	1,737	1,513	224	12.9	77.9
65+	591	160	146	12	7.5	27.1
Nonwhite Female	15,392	8,301	6,707	1,594	19.2	53.9
16-17	967	391	301	90	23.0	40.4
18-19	967	554	437	117	21.1	57.3
20-24	2,391	1,458	1,026	432	29.6	61.0
25-34	4,231	2,630	2,207	423	16.1	62.2
35-44	2,430	1,616	1,200	416	25.7	66.5
45-64	3,247	1,501	1,401	100	6.7	46.2
65+	1,159	151	135	16	10.6	13.0
Black Male	10,339	7,388	6,218	1,170	15.8	71.5
16-17	863	268	168	100	37.3	31.1
18-19	863	419	311	108	25.7	48.6
20-24	2,183	1,572	1,251	321	20.4	72.0
25-34	2,513	2,222	1,978	244	11.0	88.4
35-44	1,307	1,134	966	168	14.8	86.8
45-64	2,071	1,622	1,406	216	13.3	78.3
65+	539	151	138	13	8.6	28.0
Black Female	14,271	7,771	6,188	1,583	20.4	54.5
16-17	924	366	277	89	24.3	39.6
18-19	924	519	402	117	22.5	56.2
20-24	2,312	1,366	936	430	31.5	59.1
25-34	3,976	2,462	2,042	420	17.1	61.9
35-44	2,143	1,513	1,101	412	27.2	70.6
45-64	2,924	1,405	1,306	99	7.0	48.0
65+	1,068	142	124	18	12.7	13.3

Table II Population & Labor Force Composition Projections
Fiscal Year 1981
Hampden County (CETA)

	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Participation Rate
Total Population	456,384					
16 years & older	348,864	217,000	202,900	14,100	6.5	62.2
White Males	146,984	108,147	103,027	5,120	4.7	73.6
16-17	8,341	5,072	4,662	410	8.2	60.8
18-19	8,341	5,279	4,800	479	9.1	63.3
20-24	18,892	15,051	13,982	1,069	7.1	79.7
25-34	24,452	22,034	21,020	1,014	4.6	90.1
35-44	20,598	18,488	17,902	586	3.2	89.8
45-64	45,324	35,559	34,321	1,238	3.5	78.5
65+	21,034	6,664	6,340	324	4.9	31.7
White Females	177,940	94,161	87,538	6,623	7.0	52.9
16-17	8,183	6,290	5,515	775	12.3	76.9
18-19	8,183	5,529	5,162	367	6.6	67.6
20-24	20,207	13,771	12,784	987	7.2	68.1
25-34	30,480	19,413	18,368	1,045	5.4	63.7
35-44	23,617	16,288	15,483	805	4.9	69.0
45-64	51,767	30,057	27,715	2,342	7.8	58.1
65+	35,502	2,813	2,511	302	10.7	7.9
Nonwhite Males	9,917	7,169	6,156	1,013	14.1	72.3
16-17	822	271	186	85	31.4	33.0
18-19	822	425	333	92	21.6	51.7
20-24	2,028	1,495	1,219	276	18.5	73.7
25-34	2,268	2,005	1,790	215	10.7	88.4
35-44	1,298	1,128	982	146	12.9	86.9
45-64	2,113	1,692	1,504	188	11.1	80.1
65+	568	153	142	11	7.2	26.9
Nonwhite Females	14,023	7,523	6,179	1,344	17.9	53.6
16-17	847	338	263	75	22.2	39.9
18-19	847	514	415	99	19.3	60.7
20-24	1,973	1,180	819	361	30.6	59.8
25-34	3,769	2,325	1,966	359	15.4	61.7
35-44	2,352	1,557	1,209	348	22.4	66.2
45-64	3,146	1,481	1,393	88	5.9	47.1
65+	1,089	128	114	14	10.9	11.8
Black Males	9,465	6,828	5,847	981	14.4	72.1
16-17	799	249	167	82	32.9	32.0
18-19	799	393	304	89	22.6	49.2
20-24	1,949	1,408	1,140	268	19.0	72.2
25-34	2,149	1,957	1,749	208	10.6	91.1
35-44	1,229	1,089	948	141	12.9	88.6
45-64	2,011	1,582	1,400	182	11.5	78.7
65+	533	150	139	11	7.3	28.1
Black Females	13,339	7,165	5,847	1,318	18.4	53.7
16-17	832	332	258	74	22.3	39.9
18-19	832	491	394	97	19.8	59.0
20-24	1,948	1,115	761	354	31.7	57.7
25-34	3,685	2,242	1,891	351	15.7	60.8
35-44	2,127	1,477	1,136	341	23.9	69.4
45-64	2,903	1,389	1,302	87	6.3	47.8
65+	1,013	119	105	14	11.8	11.7


NEW HAMPSHIRE
VERMONT
MASSACHUSETTS
CONNECTICUT RIVER
LEGEND
PVTA Service Area
Blow-up
Regional Map
Route 2 Mohawk Trail
Interstate Route 91
Route 63
ATHOL
ORANGE
GREENFIELD
Route 116
DEERFIELD
MONTAGUE
Route 9
SOUTH DEERFIELD
SUNDERLAND
WHATELY
LEVERETT
HATFIELD
QUABBIN RESERVOIR
WILLIAMSBURG
PELHAM
AMHERST
HADLEY
NORTHAMPTON
WESTHAMPTON
BELCHERTOWN
SOUTH HADLEY
WARE
EASTHAMPTON
US Route 202
GRANBY
US Route 20
Route 9
SOUTHAMPTON
Massachusetts Turnpike
Westover AFB
HOLYOKE
LUDLOW
WARREN
CHICOPEE
WESTFIELD
Interstate Rte 90
Int 291
US Route 20
WEST SPRINGFIELD
SPRINGFIELD
WILBRAHAM
EAST LONGMEADOW
SOUTHWICK
AGAWAM
LONGMEADOW
HAMPDEN
MASSACHUSETTS
CONNECTICUT
US Route 202
Interstate Route 84
ENFIELD
REGIONAL KEY

MAP I



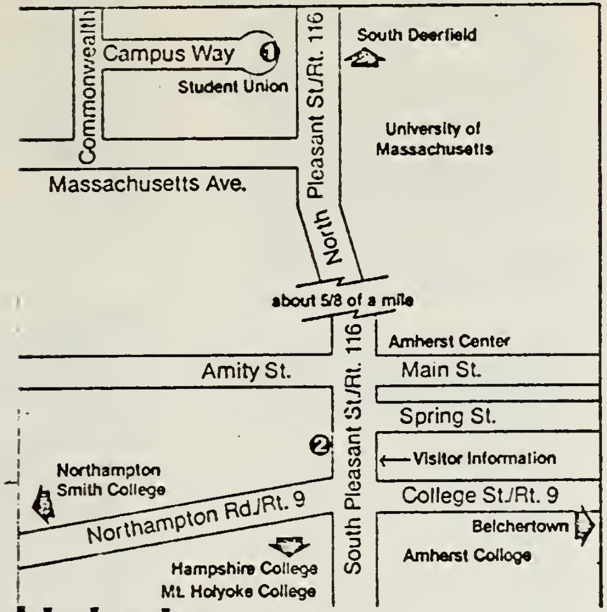
GREATER SPRINGFIELD CHAMBER OF COMMERCE (413) 734-5671

BAYSTATE WEST PLAZA 1500 MAIN STREET – SUITE 600 SPRINGFIELD, MASSACHUSETTS 0111

Convention & Visitors Bureau
284 State Street, Springfield, Mass. 01105
(413) 734-4959

MAP II

MAP III



❶

Campus Way
Center Terminal
Peter Pan bus to Boston

Pioneer Valley Transit Authority Terminal

Five College bus terminal

❷

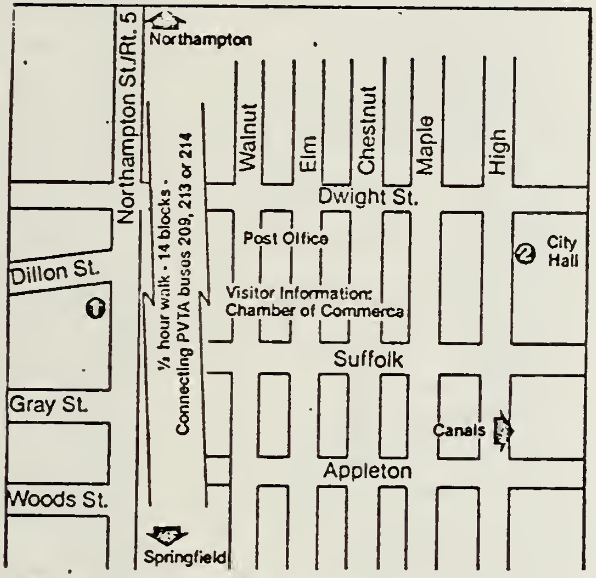
Trailways Terminal
79 South Pleasant St.
Trailways bus to New York City/Worcester Ayer/Lowell

Peter Pan bus to Boston/Springfield/ Hyannis/Woods Hole

Pioneer Valley Transit bus stop

Taxicab stand

Holyoke



❶

Trailways Terminal
Trailways to Springfield/New Haven /New York City/ Fitchburg/Ayer/Lowell

Peter Pan to Springfield /Amherst/Boston/Cape Cod

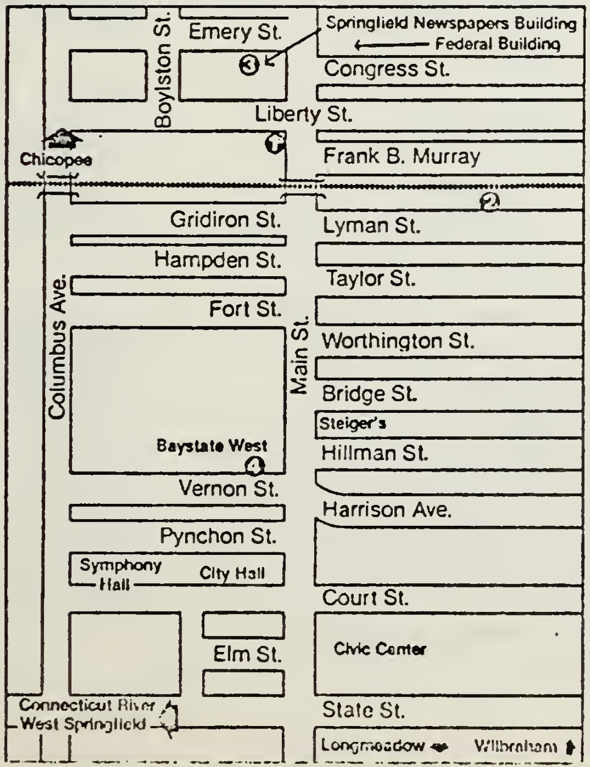
Vermont Transit to Greenfield/Brattleboro /White River Junction /St. Johnsbury

PVTA bus stop for buses 209, 213, or 214

❷

City Hall
Pioneer Valley Transit Authority bus shelter (terminal)

Springfield



❶

Bus Terminal
Peter Pan to Boston /Worcester/Bradley Airport/Cape Cod

Greyhound to New York City/Burlington, VT

Vermont Transit to Montpelier/Montreal

Bonanza bus to Lenox /Pittsfield/Albany /Providence

Blue Line to Willimantic, CT/Storrs, CT/New London, CT

PVTA buses 401,403, 404,406,217,101,102, 105,111

❷

Amtrak railroad station
Trains to New York City/Montreal/Boston

❸

Newspapers Building
PVTA buses 401,403, 404,406

❹

Vernon Street
PVTA buses 110,704,

Amherst

Peter Pan—From Deerfield, Springfield, Boston-Worcester, U.Mass./Boston.

Trailways—From New York City, Hartford, Haverhill.

Western Mass Bus—From Worcester, Northampton.

Greenfield - Montague RTA "GMA" Bus (Greenfield-Montague Ctr.-Amherst). Also listed as PVTA Route 801.

PVTA/U.Mass. Buses from U.Mass. Terminal: Bus 310 (Belchertown), 315 (Echo Hill), 320 (Belchertown Rd.), 325 (Orchard Valley), 330 (South Amherst), 340 (Orchard Hill), 350 (Campus Shuttle), 360 (North Amherst), 380 (Sunderland), 390 (South Deerfield).

Amherst-U.Mass.

Peter Pan 501 (Springfield-Holyoke-Easthampton-Amherst).

Peter Pan 503 (Springfield-Fairfield Mall-Westover-South Hadley).

PVTA/Western Mass. 703 (Northampton-North Amherst).

Agawam

PVTA/Peter Pan 505 (Springfield-Agawam-Bradley).

PVTA/Western Mass 704 (Springfield-Agawam).

PVTA/Springfield-Agawam 705 (Springfield-Riverside Park).

Belchertown

Peter Pan—from U.Mass./Amherst, Worcester, Boston/Trailways.

Western Mass Bus—from Worcester and Northampton.

PVTA/U.Mass. 310 (U.Mass.-Belchertown Ctr.).

Brimfield

Peter Pan—from Springfield, Worcester, and Boston/Trailways.

Chicopee

Greyhound—from Albany (N.Y.), Worcester, Boston.

PVTA—local services, as below.

Aldenville

PVTA/Holyoke 202 (Fairfield Mall *via* Chicopee Falls).

PVTA/Holyoke 219 (Holyoke-Fairfield Mall *via* Westover).

Chicopee Falls

PVTA/Springfield 101 (Springfield-Fairfield Mall/Sumner-Allen).

PVTA/Springfield 103 (Springfield-Chicopee Falls *via* Liberty, Wilbraham Rd.).

PVTA/Holyoke 219 (Holyoke-Fairfield Mall *via* Westover).

PVTA/Holyoke 202 (Fairfield Mall *via* Chicopee Falls).

Easthampton

PVTA/Holyoke 216 (Holyoke-Northampton/Easthampton).

PVTA/Western Mass 701 (Northampton-Easthampton).

East Longmeadow

PVTA/Longueil 402 (Springfield-Longmeadow-East Longmeadow).

PVTA/Longueil 404 (Springfield-East Longmeadow).

Hadley

Western Mass—from Worcester, Northampton.

PVTA/Peter Pan 501 (Springfield-Holyoke-East & Northampton-Amherst).

Holyoke

Peter Pan—from Deerfield and Springfield.

Trailways—from New York City and Haverhill.

Vermont Transit—from White River Jct. (Vt.), Springfield.

PVTA/Springfield Bus 111 (Springfield-Holyoke *via* Riverdale).

Peter Pan 501 (Springfield, Holyoke, East & Northampton, Amherst).

PVTA/Holyoke Buses, all connect from Holyoke Ctr.

Bus 201 (Chicopee Ctr.)
Bus 202 (Fairfield Mall *via* Chicopee Falls)
Bus 203 (Elmwood)
Bus 204 (Elmwood/Whiting Farms)
Bus 205 (Oakdale/Whiting Farms)
Bus 206 (Fairfield Mall *via* Fairview)
Bus 207 (Granby Road to East Street)
Bus 208 (Westfield *via* Hampton Ponds)
Bus 209 (Jarvis Ave.)
Bus 210 (Essex/Appleton)
Bus 211 (South Hadley Ctr.)
Bus 212 (South Hadley Falls)
Bus 213 (West Dwight/Hillside)
Bus 214 (Highlands)
Bus 215 (West Hampden)
Bus 216 (Northampton/Easthampton)
Bus 217 (Springfield *via* Riverdale)
Bus 219 (Fairfield Mall *via* Westover)

Bus 220 (Amherst)
Bus 221 (Springfield Express)

Longmeadow

PVTA/Longueil 402 (Springfield-East Longmeadow-Longmeadow).

PVTA/Longueil 406 (Springfield-Longmeadow-Enfield, Conn.).

Northampton

Peter Pan from U.Mass./Amherst, and Boston.

Trailways from New York City, Hartford (Conn.), and Haverhill.

Vermont Transit from Springfield and White River Jct. (Vt.).

Western Mass. from Worcester.

PVTA/Holyoke Bus 216 (Holyoke-Northampton/Easthampton).

Peter Pan Bus 501 (Springfield-Holyoke, Easthampton, Amherst).

PVTA/Western Mass. Bus 701 (Northampton-Easthampton).

PVTA/Western Mass. Bus 702 (Northampton-Williamsburg).

PVTA/Western Mass. Bus 703 (Northampton-North Amherst).

Palmer

Peter Pan from Springfield, Worcester, Boston/Trailways.

Pelham

Trailways from New York City, New Haven, Hartford, Springfield, Haverhill.

South Hadley

PVTA Bus/Holyoke 207 (Holyoke-Granby Rd. to East St.).

PVTA Bus/Holyoke 211 (Holyoke-South Hadley Ctr.).

PVTA Bus/Holyoke 212 (Holyoke-South Hadley Falls).

PVTA Bus/Holyoke 220 (Holyoke-Amherst).

PVTA Bus/Peter Pan 503 (Springfield-Fairfield Mall-Westover-South Hadley).

Springfield

Amtrak—from Washington (D.C.), New York City, Hartford, Montreal, Boston (South Station), Albany, Chicago.

Blue Line Bus—from New London (Conn.).

Bonanza—from Providence, Albany (N.Y.), Pittsfield.

Greyhound—from New York City, Hartford, Albany (N.Y.), Worcester, Boston.

Peter Pan Bus—from Deerfield, Bradley Airport, Worcester, Woods Hole, Boston/Trailways.

Trailways—from New York City, Hartford, New Haven, Haverhill, Worcester.

Vermont Transit—from White River Junction (Vt.).

All Springfield Street Railway and Longueil buses—Holyoke. Street Railway Buses 217 & 221. Also Springfield-Agawam Bus 704.

Westfield

PVTA/Springfield 110 (Springfield-Westfield).

PVTA/Holyoke 208 (Holyoke-Westfield *via* Hampton Ponds).

Peter Pan 504 (Springfield-Westfield-Westfield State College).

West Springfield

PVTA/Springfield 110 (Springfield-Westfield).

PVTA/Springfield 111 (Springfield-Holyoke *via* Riverdale).

PVTA/Holyoke 217 (Holyoke-Springfield *via* Riverdale).

PVTA/Peter Pan 504 (Springfield-Westfield-Westfield State College).

PVTA/Springfield-Agawam 704 (Springfield-Agawam).

Wilbraham (North Wilbraham)
Peter Pan—from Worcester, Springfield, Boston/Trailways.
PVTA/Peter Pan Bus 502 (Springfield-Eastfield Mall-North Wilbraham-Palmer).
PVTA/Longueil Bus 401 (Springfield-Wilbraham-North Wilbraham).
PVTA/Longueil Bus 403 (Springfield-Sixteen Acres-Eastfield Mall).

Williamsburg
PVTA/Western Mass. 702 (Northampton-Williamsburg).

III.

ASSUMPTIONS AND PROJECTIONS FOR THE ECONOMY
COMMONWEALTH OF MASSACHUSETTS
FEDERAL FISCAL YEAR 1981 (FFY '81)

The Job Market Research staff of the Division of Employment Security has the responsibility for analyzing and reporting changes in the State's employment and unemployment. Nevertheless, even with the most current data and with computer models of the national and state economies, projecting economic conditions is extremely difficult in these times of rapid changes. (At the national level, for example, projections of the FFY '81 average unemployment rate have been increased by almost two percentage points in a recent two-month period.) The economic assumptions for Massachusetts were based on data available at the beginning of June 1980.

1. Employment

Employment by industry groups has been projected for the coming fiscal year. Detailed projections are analyzed in a later section of this report. Total employment in Massachusetts is expected to range around 2,705,000 for FFY '81. This is an expected decline of 5,000 from FFY '80. Wage and salary employment projections by industry group for FFY '81 range around the levels shown below:

Industry	Employment Projected FFY 1981 in 000's
TOTAL NONAGRICULTURAL EMPLOYMENT	2,655.4
Manufacturing - Total	669.4
Durable goods	406.1
Nondurable goods	263.3
Construction	78.0
Transportation, Communications & Public Utilities	119.1
Wholesale and Retail Trade	589.2
Finance, Insurance and Real Estate	151.8
Services 1/	626.1
Government - Total	421.6
Federal	60.8
State	98.1
Local	262.8

1/ Includes part of Agriculture and Mining

2. Unemployment Rate

We expect Massachusetts to average approximately one-half to one percentage point below the national average rate. As of this writing, the Data Resources Incorporated (DRI) national forecast is for an 8.5 percent average unemployment rate during FFY '81. This would give Massachusetts an average unemployment rate of about 8 percent over the same time period.

3. Labor Turnover

The labor turnover in Massachusetts is expected to follow the 1971 trend during which new hires and quits fell 30 percent to levels below 2.0 per 100 employees. Total accessions are expected to be fewer than total separations by a ratio of 2 to 3.

4. Wages and Inflation

Total wages are expected to increase by approximately 11 percent. Purchasing power is not expected to rise by as much as wages because inflation will continue to reduce the value of the dollar. During FFY '80 inflation has risen to 13.5 percent, but is expected to be less in FFY'81 -- perhaps down to 10 percent. It is doubtful that consumers will continue purchasing at the FFY '80 rate, which is already considerably lower than FFY '79 in real terms.

5. Credit

The cost of financing current purchases is expected to remain high, but well below the FFY '80 peak which saw a prime rate of 20 percent. The mortgage rates are projected to be around 11.0-11.5 percent in FFY '81, and consumer credit in a range of 11-12 percent. All interest rates are highly sensitive to changes in U. S. Treasury or Federal Reserve Bank policies.

6. Defense Contracts

Defense contract spending, vital to the health of the Massachusetts economy, is expected to remain stable at its current levels. Massachusetts is among the top 10 states in the receipt of defense contracts with a value greater than $10,000. The nearly $3 billion awarded to the Commonwealth's firms represents over 5 percent of the total awards.

7. Energy

Because the Massachusetts industrial mix is relatively nonenergy intensive, we do not expect the upward trend in energy prices to affect Massachusetts as much as the rest of the country. During 1979, industries coped with rising energy costs through conservation and conversion.

IIIA. Economic Assumptions and Economic Outlook in the Springfield-Chicopee-Holyoke Labor Market Area

In making an economic forecast for Springfield-Chicopee-Holyoke LMA for fiscal years 1980 and 1981, it is assumed that the following conditions will prevail:

1. Inflation which reached double-digit figures in FY 1979 appears to be gaining momentum in FY 1980, with little relief in sight.
2. Soaring prices and restricted credit will diminish consumer confidence and buying power. (It was consumer spending that brought us out of the 1975 recession.
3. Demand for capital goods (capital investment) which has improved over the past year will slow down, especially if the Administration persists in its "tightening of credit" policy.
4. All types of energy will be available, but the cost could be detrimental to desired growth.
5. A national recession will be firmly established by the second quarter of FY 1980.

On the basis of these assumptions the Springfield-Chicopee-Holyoke Labor Market Area can be expected to follow these main trends through fiscal years 1980 and 1981.

1. Production of goods and services (and as a result employment) which grew in the first half of FY 1980 will drop off considerably in the second half of the year. The average rate of unemployment will rise to 5.3 percent in FY 1980 from 4.8 percent in FY 1979.
2. In fiscal year 1981 the rate of unemployment will level off at 6.4 percent.

IV. Employment Developments and Outlook by Industry Projected Through Fiscal Years 1980 and 1981

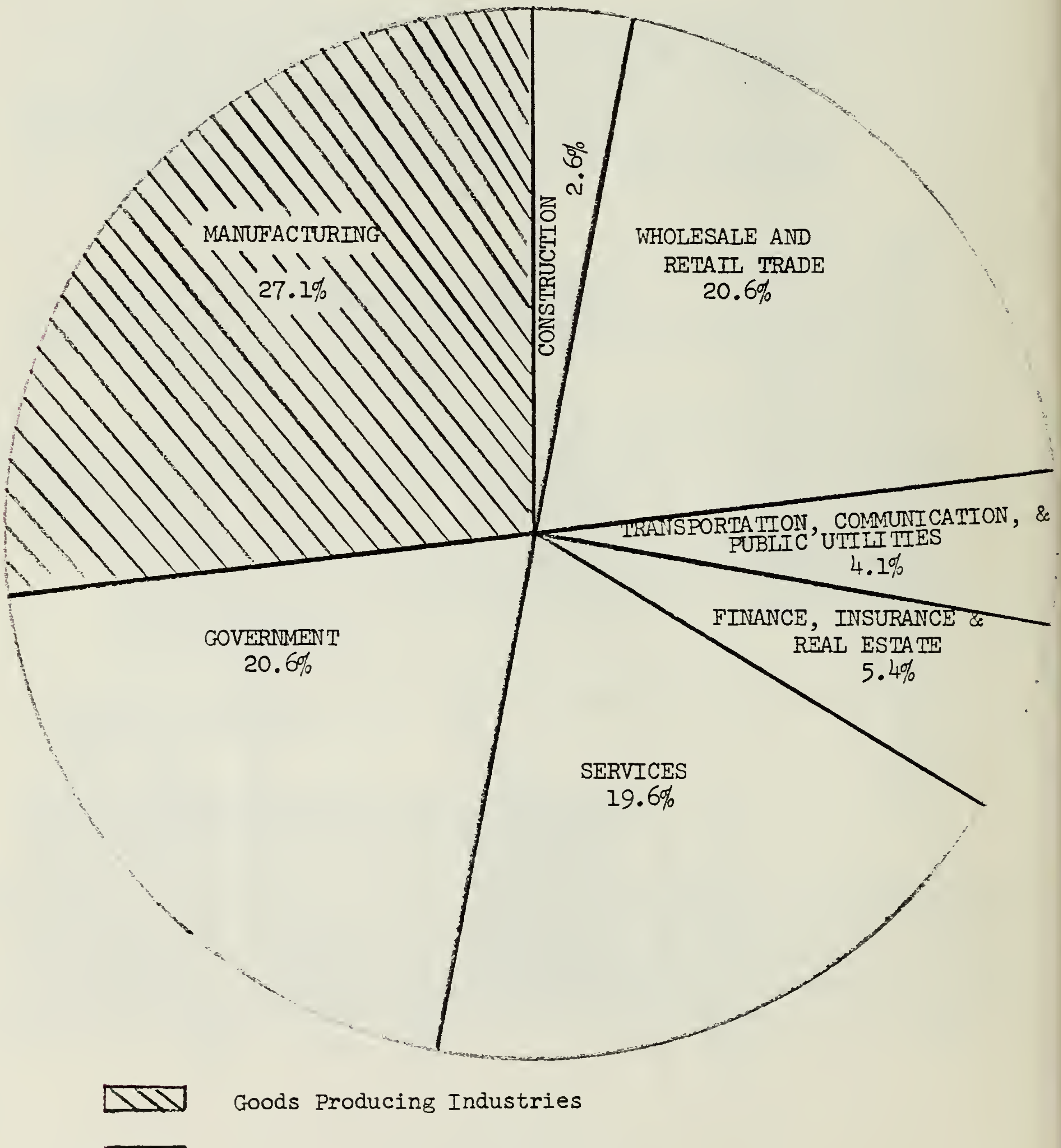
According to U. S. Indices, by the beginning of the second half of fiscal year 1980, the nation appeared to be in a recession. Nevertheless, this labor market area just completed a six month period (October 1979 through March 1980) recording a 10-year record low rate of unemployment, averaging 4.7 percent. In April, the area experienced an unusual increase in plant layoffs accompanied by a rise in unemployment insurance claims; however, it is a little early to establish the beginning of a recession in this area.

Table III Nonagricultural Wage and Salary Employment by Major Industries and Groups
Projection Through Fiscal Years 1980 and 1981
Springfield-Chicopee-Holyoke LMA

	Fiscal Year Average 1978 Experience	Fiscal Year Average 1979 Experience	Fiscal Year Average 1980 Projection	Fiscal Year Average 1981 Projection
Nonagricultural Total*	229.7	233.0	231.5	227.3
Manufacturing Total	66.2	67.0	65.1	61.6
Durable Goods Total	29.6	30.2	29.4	27.6
Primary Metals	2.1	2.2	2.0	1.7
Fabricated Metals	10.2	10.0	9.4	9.0
Machinery (nonelect.)	8.7	8.9	9.2	8.9
Electrical Machinery	3.0	3.4	3.2	3.0
All Other Durable Goods***	5.6	5.7	5.6	5.0
Nondurable Goods Total	36.6	36.8	35.7	34.0
Food	2.4	2.3	2.2	2.2
Textiles	2.1	2.0	1.8	1.7
Apparel	3.1	3.0	2.8	2.6
Paper	7.6	7.7	7.8	7.5
Printing	6.1	6.2	6.1	6.0
All Other Nondurable Goods***	15.3	15.6	15.0	14.0
Nonmanufacturing Total	163.5	166.0	166.4	165.7
Contract Construction	5.5	6.0	6.1	5.8
Transp. & Public Util.	9.3	9.4	9.3	9.2
Wholesale & Retail Trade	46.3	47.8	47.4	46.9
Fin., Ins., & Real Estate	12.3	12.4	12.5	12.3
Service, Misc., & Mining	42.0	43.4	44.0	44.6
Government Total	48.1	47.0	47.1	46.9

*In Thousands
**All Other Durable Goods Includes Transportation Equipment
***All Other Nondurable Goods Includes Chemicals, Leather, Rubber, Games, Toys, and Sporting Goods

Figure I
Nonagricultural Employment Shares by Industry
Springfield-Chicopee-Holyoke Labor Market Area
Projected FY 1981*



▨ Goods Producing Industries

□ Service Producing Industries

* Projected FY 1981 Nonagricultural Employment 227,300

Since the labor market area is dependent on the rest of the country for about 90 percent of its orders for goods and services, a national recession could create a loss in average nonagricultural employment of 1500 jobs in FY 1980 (See Table III)

It took firms in the manufacturing industrial groups until 1978 to reach and surpass the employment level of the prerecessionary high of 1974. Since most of these industries are not resistant to changes in the business cycle another recession could easily wipe out gains in employment made over the past two years.

Durable Goods

Primary metals is a capital intensive, highly automated, industry involving such heavy equipment as blast furnaces, extruders of cold rolled steel, foundries producing iron castings, drop forge equipment, and drawing and insulating of nonferrous cable and wire. Since most of its products are components of capital equipment or other sizeable finished goods it is susceptible to fluctuations in the business cycle. Orders for such products are normally the first to be affected by a recession. Employment in this industry should decline to about 2,000 in FY 1980 and even further to 1,700 in FY 1981, depending on the severity of the recession.

When the ordnance industry became part of the fabricated metals industrial group in 1975, the fabricated metals industry surpassed the paper industry as the largest employer in the factory division. This industry is also affected by fluctuations in the business cycle, but not as much as the primary metals sector. Many of its products are finished goods enabling firms to build up inventories against future sales during a lull period. Firms have been able to expand their foreign markets considerably in recent years.

Reduction in employment has already begun in one large hand tool producing firm (blamed on foreign competition). One large hand gun manufacturer plans to reduce its payroll by 100 workers by moving its leather-working jobs to North Carolina. The sales slump in the hard hit automobile producing industry should result in cuts in firms producing automotive hardware. Those firms producing iron and steel forged products and castings for capital goods producing industries (heavy industrial equipment) should feel the effect of any reduction in investment capital spending. This is certain to happen in a recession. By the end of FY 1980 employment could drop to 9,400 and possibly as low as 9,000 in FY 1981 depending on the intensity of the recession.

The nonelectrical machinery industry produces equipment for the food, textiles, paper, printing industries. It also produces industrial compressors, mechanical power transmissions, computers, and a large variety of specialized heavy industrial machinery. Payrolls have grown considerably in the first half of fiscal year 1980, and since orders appear to be holding up it can be assumed that this industry will show a gain in employment over the year.

However, in a recession demand for capital goods is usually the first to fall off, and nonelectrical machinery produced in this area is mostly capital goods. Therefore, in FY 1981 employment in this sector can be expected to decline by a few hundred workers, levelling off at about 8,900 jobs.

Employment in the electrical machinery industry has still not recovered from the 1975 recession. By 1979 average employment reached 3,400 or 85 percent of the peak year 1974 when payrolls averaged 4,000. During the recovery period growth in personnel took place mainly in firms producing electronic coils, transformers and other inductors, electronic components, and electronic equipment for internal combustion engines. During the first six months of FY 1980, employment has remained stable in this industry except for firms producing electronic equipment for internal combustion engines for the automotive industry which have already reported a loss of 200 jobs in the first half of the year. Because of the rapid decline of the automobile industry in FY 1980, employment is expected to continue dropping through fiscal year 1981, levelling off at about 3,000 workers.

The largest segment of the all other durable goods category is the transportation equipment industry which is divided into three sectors: vehicle parts, aircraft parts, and bicycles.

The vehicle parts business consists of one large firm which caters to the trucking industry. Exceptional growth in recent years has been attributed to expansion in the diesel power trucking industry. Employment is expected to stabilize this year, but could drop off slightly in FY 1981 depending on the severity of the recession.

Payrolls in the aircraft parts business has been growing constantly over the past three years in this labor market area. The strong national defense program, especially in the area of military aircraft, plus recent increased demand for commercial and private planes, should keep employment growing in this sector through fiscal year 1981. In fact, one large firm is planning to upgrade its plant by investing $2 million to $3 million in new equipment over the next year.

The bicycle business is also a one firm industry in this area. This company is the second largest producer of bicyles in the country. Being a producer of a luxury item the firm is vulnerable to a recession. Sizeable layoffs have recently occurred in its expensive motorized bicycle department. A decline in payrolls is expected through fiscal year 1981.

Non-Durable Goods

Employment in the food and food processing industry peaked at 3,000 in 1971, slowly declined to 2,200 by 1977, and, except for slight fluctuations affected by changes in the economy, appears to have stabilized at this level through the present time. It should continue at the same 2,200 jobs through the next 18 months. The workforce is fairly evenly divided between the following lines: meat products, dairy items, baked goods, and beverages. Stabilization in employment is further guaranteed by the highly automated nature of the business.

Competition at home and abroad has made the textile industry a highly automated industry. The advent of "knits:"in recent years forced the industry to develop new techniques and equipment to produce knitted goods. New techniques helped the industry in the production of other textile products. New equipment enabled some plants to double their output with less help. The industry averages several hours a week in overtime for its workers, more than any other industry in the manufacturing division. Employers prefer to increase hours worked over new hiring (with its high costs of fringe benefits). This practice also tends to keep total employment down over the long run. Firms that appear to be doing quite well are those producing knitted goods, felt items, broad woven fabrics, and man made fibers. Payrolls should decline a bit and level off at about 1,700 jobs in fiscal year 1981, again depending on the severity of the recession.

Extreme competition and limited opportunities to automate have made the apparel and related products industry the lowest paying of the manufacturing industries in the area. About 75 percent of the workforce are in firms producing womens' and childrens' inner and outer wear. Twenty-five percent are employed in the production of findings for the garment industry. Since demand for womens' wear usually declines during a recession, employment in this industry could drop by 300 during the next 18 months.

The paper industry is no longer the largest employer in this labor market area. More than 1,000 jobs have disappeared since 1970, when average employment was 8,800. Fluctuations in employment between 1970 and 1979 demonstrate how sensitive the paper industry is to changes in the general economy (the business cycle), to new legislation (environment restrictions), and even to Administration decisions (the 1975 U. S. postal hike nearly killed the direct mailing business and seriously hurt firms producing envelopes). In recent months the industry has begun to feel the effect of foreign competition in the production of special items. By late 1976, many firms were back to the volume they enjoyed just prior to the 1975 recession, but this was accomplished with workforces well below 1974 levels and as a direct result of heavy investment in automatic equipment and, in some cases, expanded facilities.

After many years in business, a paper mill in Westfield recently closed its doors, laying off 100 workers. This firm had as many as 200 employees in early 1979, producing kraft capacitor tissues for the electronics industry. The reason given for the closing was lack of orders due mainly to foreign competition.

Over the next 18 months employment in the paper industry in this area should decline, leveling off at 7,500.

Average employment in the printing industry reached a record high of 6,200 in 1978 and remained at approximately that level throughout 1979. Stability was due largely to the capital intensive nature of the business, the high cost of paper, and the high priced technology that has entered the field. Since employment in the printing field is affected slightly by the ups and downs of the general economy, personnel should drop a bit over the next 18 months.

Industries included in the all other nondurable goods category make up 42 percent of the jobs in the nondurable goods sector in this labor market area. They consist largely of the following: chemicals, rubber, leather products, games and sporting goods.

The games, toys, sporting goods, and leather products industries consist of firms which are leaders in their respective fields. Their products are consumer items, mostly for gifts. They did very well in the recessionary year 1975 and have continued to do well up to the present. Current orders should carry these firms well into fiscal year 1981. Only a severe recession could negatively affect employment levels.

At this time, the chemical producing firms appear not to be affected by any shortages or the high cost of oil; however, a serious worsening of the situation could hurt firms producing petro-chemical products such as plastics, synthetic resins, and numerous miscellaneous plastic items.

Average employment in the all other nondurable goods category will drop significantly in FY 1980 and further in FY 1981 because of the decision announced earlier in the year by Uniroyal, a large tire producing company, to go out of business. Some 1,600 workers will be permanently laid off when the company closes its doors in July 1980. The plant here produces bias tires. Bias tires are the old style of tires and have largely been replaced by radials. The company informed the union that three factors necessitated the closing of the plant here as well as one in Detroit. They are "outmoded plants, stifling competition (from both domestic and foreign companies) and depressed market conditions". The company stated further that "the tire market itself is depressed due to depressed auto sales, the price of gasoline, longer wearing tires and the 55 miles per hour national speed limit".

In 1976, total employment in the nonmanufacturing division surpassed the pre-recessionary high of 1974. The one industry that did not recover from the last recession (late 1974 through 1975) is construction, where payrolls still average about 2,200 jobs below the peak year 1973 (8,200 jobs reported). The reason construction never really came back is that home construction never recovered in this part of the country. The present high costs of building, especially mortgage money, coupled with a recession makes recovery in home construction next to impossible. What will keep construction employment from dropping much lower over the next 18 months is mainly government funded projects, such as completion of improvement on Rte. 391 through Chicopee, constructing a new Federal building, some home rehabilitation work, and possibly some Section 8-low,medium and high income multi-unit projects.

Except for the 1975 recession, employment in the transportation, communications, and public utilities industry was fairly stable, averaging 9,200 jobs during the 1970's. They were able to take care of increases in demand with existing facilities and automation. With no boom in construction, commercial or residential, in the near future, employment in this industry is not expected to vary by much over the next 18 months.

For the first half of fiscal year 1980, payrolls in the wholesale and retail trade industry have been running about 1,000 less than at the same time a year ago. Increased gasoline cost, tightened credit, and a recession (real or perceived) appears to be the reasons for this drop in employment. Expansion of malls and large retail establishments seem to have peaked over the past year. Employment should level off at about 46,700 over the next 18 months.

Throughout the 1970's, except for the recession year 1975, average payrolls in the finance, insurance, and real estate industry have been on the rise. With a good start in the first six months, fiscal year 1980 could be a peak year, with employment averaging 12,500. In recent years the real estate segment has not done too well due to little or no growth in new housing. If the local economy slumps a bit over the next year and a half, employment could drop some and level off at about 12,300 in fiscal year 1981.

Services continues to be one of the industries with the largest growth in jobs in the area. Amusements and recreational facilities and health institutions continue to provide the largest gains in personnel. Employment was further bolstered by the booming convention and exposition business over the past several years. Nevertheless, growth in payrolls in fiscal year 1980 and 1981 is expected to be at a diminished rate due to the recession.

Personnel in government will increase slightly in fiscal year 1980 due mainly to increases in funding of state universities and institutions. However, employment could decline a bit in fiscal 1981 as federal and local government begins to feel the pinch of tight budgeting.

V. Recent Unemployment Trends and Outlook

The beginning of recovery from the last recession was first observed in the Springfield-Chicopee-Holyoke Labor Market Area in the fall of 1975. From that time on, the rate of unemployment declined, uninterrupted, except for seasonal changes, right up to the present. The number of unemployed also consistently declined during this period. In 1979 the average rate of unemployment in the area dropped to 4.8 percent, a significant improvement over the 11.3 percent in 1975. Trends in unemployment rates showed this area recovering slightly faster than the state early in 1976 and slightly faster than the nation by the last quarter of 1977. The fact that the area recovered faster than the state as a whole can be attributed to its excellent industrial base and diversification within each industry. Furthermore, the combined effort of the public and private sectors to hold on to existing manufacturing industries in recent years appears to have paid off.

Economic conditions continued to improve throughout the first six months of fiscal year 1980. However, in the seventh and eight month sizeable layoffs began to occur affecting employment in firms producing fabricated metals, transportation equipment and rubber tires. During the second half of FY 1980, inflation is bound to take its toll of consumer spending and demand for capital goods should at least begin to feel the effect of a declining national economy and tight money. The unemployment condition will also worsen since the job market will be unable to accommodate all of the entrants and reentrants into the labor market whether they be new graduates or women reentering the laborforce. The unemployment rate should reach an average of 5.3 percent in FY 1980, and could go as high as 6.4 percent in FY 1981.

Table IV Summary Table for Economic Projections
Fiscal Years 1980 & 1981

	Actual		Projected		Actual		Actual		Projected	
	FY 1978	FY 1979	FY 1980	FY 1981	FY 1978	FY 1979	FY 1979	FY 1980	FY 1980	FY 1981
Item					Number	Percent	Number	Percent	Number	Percent
Labor Force**	275.3	276.6	276.0	274.3	+1.3	0.0	-0.6	-0.0	-1.7	-0.1
Employment*	260.1	263.2	261.5	256.8	+3.1	+1.2	-1.7	-0.1	-4.7	-1.8
Unemployment*	15.2	13.4	14.5	17.5	-1.8	-11.8	+1.1	+8.2	+3.0	+20.7
Unemployment Rate	5.5	4.8	5.3	6.4	XX	XX	XX	XX	XX	XX

* In Thousands of Jobs

** Current Employment Series of the Mass. Division of Employment Security in Cooperation With the U. S. Dept., of Labor, Bureau of Labor Statistics and the Current Population Survey

Fiscal Years Include October 1 Through September 30

VI. Employment Developments and Outlook by Occupation Occupational Requirements in the Springfield-Chicopee-Holyoke Labor Market Area 1976-1985

The total demand for workers during the 1976-1985 span of years is the sum of the demand arising from industry growth and that needed for replacement of workers who leave the labor force because of death, retirement or other separations from the laborforce. The nine-year growth component will amount to approximately 27,510, while more than two times this number (58,700) will be needed as replacements. On the average, therefore approximately 12,320 additional workers will be required each year during this nine-year span .

Estimated Annual Job Openings 1976-1985

	Demand	Due To Growth	Due To Separation
Total-All Occupations	12,316	3,930	8,386
Professional, Technical, Kindred	1,771	613	1,158
Mgrs., Officials, Proprietors	1,427	456	971
Sales Workers	900	241	659
Clerical & Kindred Workers	2,803	1,047	1,756
Craft Workers & Supervisors	1,224	416	808
Operatives & Kindred Workers	1,635	432	1,203
Service Workers	2,155	672	1,483
Laborers, Exec., Farm & Mine.	346	98	248
Farmers & Farm Laborers	55	-45	100

SOURCE: LMA Estimate Based on State Employment Requirements by Occupation, by Industry, an Occupation/Industry Research Department Publication (see Table V for Occupational Breakdown).

Corresponding to state trends, the clerical division is expected to be the fastest growing group in the 1976-1985 span of years. Increased paper work will accompany the expansion of large and complex organizations, even though routine clerical work may be reduced through increased use of computer or other business machines. Job opportunities should be especially prominent for secretaries, clerk-typists, bookkeepers and cashiers.

Demand for workers in the service category should expand significantly into the 1980's. A rising demand for hospital and other medical care and the more frequent use of restaurants and other services will foster an increased need for service workers. As income levels rise within this area, job opportunities should abound for nurses' aides and food service workers.

Job openings in the professional, managerial and sales division should expand moderately in the 1976-1985 period. Demand should be particularly strong for medical and health workers (especially registered nurses and therapists), engineers (electrical, in particular), electrical and electronics technicians, computer specialists, accountants, financial managers and insurance and real estate agents (if there is a breakthrough in the troubled housing industry).

Teachers are expected to face competition for jobs as the available supply of labor in this category continues to exceed demand. However, recent growth in employment of preschool teachers is expected to continue as a result of the entrance of many a family's second wage earner into the work force.

Since the manufacturing sector provides close to 29 percent of total non-agricultural jobs in the area demand for operatives and kindred workers is expected to increase significantly during the first half of the 1980's.

The job picture in the crafts occupations should brighten over the next seven years, except for construction workers who have been in a slump for five years now with little improvement in sight in the near future.

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Total-All Occupations (Nonagriculture 212,400, Farm. 2,800)	215,200	251,784	10,643	3,360	7,283
Professional, Technical, Kindred	38,172	43,899	1,771	613	1,158
Engineers, Technical	4,165	5,270	209	118	91
Engineers, Chemical	105	118	4	2	2
Engineers, Civil	454	528	23	8	15
Engineers, Electrical	1,384	1,874	73	52	21
Engineers, Industrial	774	966	39	21	17
Engineers, Mechanical	717	871	34	17	17
Life & Physical Scientists	693	802	29	7	22
Biological Scientists	144	176	7	3	4
Chemists	309	349	13	4	9
Mathematical Specialists	147	171	7	3	4
Engineers, Science Technicians	3,331	4,190	148	92	56
Chemical Technicians	177	198	6	2	4
Drafters	1,148	1,427	52	30	22
Electrical, Electronic Tech.	999	1,442	59	48	11
Engineering, Science Tech. NEC	708	740	16	3	13
Medical Workers, Exc. Technicians	6,343	7,772	379	154	225
Dentists	347	411	14	7	7
Dietitians	130	140	8	1	7
Pharmacists	434	450	24	2	22
Registered Nurses	3,631	4,389	228	81	147
Therapists	405	548	31	15	16
Veterinarians	67	78	3	1	2
Health Technol. and Tech.	1,389	1,857	104	50	54
Clinical Lab. Technol., Tech.	573	761	41	20	21
Dental Hygienists	133	273	24	15	9
Health Record Technol., Tech.	66	76	4	1	3
Radiologic Technol., Tech.	249	332	18	9	9
Technicians, Exc. Health	370	468	20	11	9
Computer Specialists	1,328	1,725	61	43	18
Computer Programmers	801	999	32	21	11
Computer Systems Analysts	453	625	24	18	6
Social Scientists	591	703	25	12	13
Teachers	8,989	8,547	189	−79	239
College & University Teachers	1,752	1,519	68	34	34
Elementary School Teachers	3,211	2,981	68	34	32
Preschool, Kindergarten	575	700	33	13	10
Secondary School Teachers	2,646	2,409	29	−59	88
Teachers NEC, Exc. College University	632	721	44	9	35
Writers, Artist, Entertainers	2,828	3,213	141	39	102
Athletics & Kindred Workers	237	282	12	5	7
Designers	431	484	18	6	12
Editors & Reporters	522	597	29	8	21
Musicians & Composers	349	419	25	8	17
Painters & Sculpters	380	420	20	3	17
Photographers	196	209	7	2	5
Public Relations Specialists	251	306	14	6	8
Radio, TV Announcers	52	67	3	2	1
Writers, Artists Entertainers NEC	253	279	10	3	7

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985 Number	Openings Due To Growth	Openings Due To Separations
Other Professional, Technical	7,979	9,183	382	129	153
Accountants	2,367	2,717	131	38	93
Clergy	518	570	36	6	30
Lawyers	1,050	1,182	84	14	70
Librarians	463	486	16	3	13
Operations, Systems Research	298	381	14	9	5
Personnel Labor Relations	718	825	32	12	20
Research Workers, NEC	447	456	13	1	12
Recreation Workers	341	399	19	8	11
Social Workers	839	1,038	58	22	36
Vocational Ed. Counselors	424	457	15	4	11
Managers Officials, Proprietors	22,884	27,119	1,427	456	971
Buyers, Sales, Loan Managers	4,076	5,267	276	128	148
Banks, Financial Managers	1,231	1,494	73	29	44
Credit Managers	149	164	9	2	7
Buyers, Wholesale, Retail	454	649	45	21	24
Purchasing Agents, Buyers NEC	500	701	42	22	20
Sales Mgrs. Retail Trade	890	1,127	54	25	29
Sales Mgr. Exc. Retail Trade	824	1,095	52	29	23
Administrators, Pub. Inspectors	2,214	2,541	141	35	106
Health Administrators	511	634	42	13	29
Inspectors, Exc. Construct Pub.	200	233	12	3	9
Officials Admins. Pub.	530	608	36	8	26
Postmasters & Mail Supervisor	58	53	3	-1	4
School Admins. College	169	160	4	2	2
School Admins. Elementary, Secondary	648	726	31	8	23
Other Managers, Officials, Prop.	16,595	19,311	1,011	293	718
Mgrs. Super. Bldg.	218	290	26	8	16
Office Managers NEC	828	1,072	51	26	25
Restaurant, Cafe, Bar Mgrs.	1,244	1,373	61	14	47
Other Mgrs. Admins.	13,775	15,979	827	237	590
Sales Workers	13,527	15,763	900	241	659
Advertising Agents, Sales Works	183	230	14	5	9
Demonstrators	121	162	10	4	6
Insurance Agents, Brokers, Etc.	1,273	1,418	64	16	48
Real Estate Agents, Brokers	1,019	1,279	94	28	66
Sales & Sales Workers NEC	10,259	11,969	690	185	505
Clerical Workers	41,233	50,596	2,803	1,047	1,756
Stenographers, Typists, Secr.	12,082	15,600	946	378	568
Secretaries, Legal	366	544	39	19	20
Secretaries, Medical	530	886	64	38	26
Secretaries, Other	8,107	10,783	678	286	392
Stenographers	164	116	2	2	4
Typists	2,915	3,272	164	39	125
Office Machine Operators	2,217	2,279	58	7	51
Bookkeeping, Billing Operators	113	129	6	2	4
Calculating Machine Operators	77	88	5	1	4
Computer, Peripheral Equip.	849	934	20	9	11
Keypunch Operators	905	874	19	-4	23
Other Clerical Workers	26,934	29,602	1,798	663	1,135
Bank Tellers	946	1,048	39	8	31
Billing Clerks	445	633	41	20	21
Bookkeepers	4,224	4,604	255	41	214

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Cashiers	3,187	4,006	215	88	127
Clerical Supervisors NEC	550	652	32	11	21
Collectors, Bills, Acct.	118	126	6	1	5
Counter Clerks, Exc, Food	800	963	56	18	38
Estimators, Investigators NEC	1,036	1,132	53	28	25
Expeditors, Prod. Controllers	649	912	49	9	40
File Clerks	785	868	40	9	31
Insurance Adjust. Examiners	509	584	22	8	14
Library Attendants, Assist.	450	471	21	3	18
Mail Carriers, P. O.	682	677	14	0	14
Mail Handlers, Exc. P. O.	426	495	24	8	16
Messenger & Office Helpers	202	195	14	1	13
Payroll, Time Keeping Clerks	597	669	35	8	25
Postal Clerks	799	705	13	10	3
Receptionists	977	1,219	79	26	53
Shipping, Rec. Clerks	1,559	1,798	78	26	52
Statistical Clerks	775	892	48	13	35
Stock Clerks, Store Keepers	1,263	1,491	70	24	46
Teachers Aides, Exc. Monitors	410	617	31	22	9
Telephone Operators	1,087	1,045	10	-10	20
Misc. Clerical Workers NEC	3,502	6,181	463	286	177
Crafts & Kindred Workers	25,451	29,311	1,224	416	808
Construction Crafts Workers	6,367	7,971	385	172	213
Carpenters & Apprentices	2,052	2,488	119	47	72
Brick & Stonemasons & Apprs.	302	347	45	5	40
Bulldozer Operators	122	177	9	6	3
Cement & Concrete Finishers	69	108	5	4	1
Electricians and Apprs.	1,163	1,397	55	25	20
Excavating, Grading Mach. Operators	328	446	19	12	7
Floor Layers, Exc. Tile Setters	34	41	2	1	1
Painters and Apprentices	930	1,134	67	23	44
Paperhangers	53	75	6	3	3
Plasterers & Apprentices	47	49	2	1	1
Plumbers, Fitters & Apprentices	869	1,149	63	30	33
Roofers and Slaters	176	245	12	8	4
Structural Metal Craft Workers	141	214	11	8	3
Tilesetters	82	95	3	2	1
Blue Collar Workers, Supv. NEC	3,818	4,403	191	65	126
Metalworking Craft Workers Exc. NEC	3,228	3,580	145	38	107
Forge and Hammer Operators	71	81	3	1	2
Job & Die Setters, Metal	199	245	12	5	7
Millwrights	143	135	3	0	3
Molders, Metal & Apprentices	141	128	4	1	3
Pattern & Model Makers	109	113	5	1	4
Sheetmetal Workers & Apprentices	357	399	14	5	9
Tool & Diemakers & Apprentices	567	647	29	8	21
Mechanics, Repairers, Installers	6,374	7,464	277	117	160
Air. Cond. Heating, Refrig. Mechanics	494	726	38	25	13
Auto Body Repairs	473	501	10	3	7
Auto Mechanics & Apprs.	2,131	2,330	69	22	47
Data Processing Mach. Repairs	142	274	16	14	2
Heavy Equip. Mech. Inc. Diesel	1,648	1,822	66	19	47
Household Appliance Mech.	302	335	11	3	8
Office Mach. Repairers	122	182	9	9	0
Radio, T. V. Repairers	257	354	18	2	16
Other Mechanics & Apprentices	536	602	24	8	16

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupation
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985 Number	Openings Due To Growth	Openings Due To Separations
Printing Trade Crafts Workers	1,341	1,294	38	-5	43
Bookbinding	121	119	5	-1	4
Compositors & Typesetters	497	419	9	-8	17
Photo Engravers, Lithographers	145	166	7	3	4
Printing Press Operators & Apprs.	510	526	16	2	14
Transportation, Public Utilities Crafts	1,152	1,273	27	14	13
Electric Power Line Installations Repairs	237	268	7	3	4
Locomotive Engineers	32	45	3	2	1
Telephone Installers Repairers	704	792	16	9	7
Telephone Line Installs.. Splicers	129	129	1	0	1
Other Crafts, Kindred Workers	3,169	3,301	160	15	99
Bakers	384	379	15	-1	16
Cabinetmakers	144	129	3	-2	5
Carpet Installers	115	129	3	2	1
Crane, Derrick & Hoist Operators	214	259	11	3	8
Decorators, Window Dressers	240	270	14	0	14
Dental Lab. Technicians	97	110	6	2	4
Jewelers & Watchmakers	104	116	10	2	8
Motion Picture Projectionists	31	32	4	1	3
Opticians, Lens Grinder, Polishers	172	267	17	10	7
Sign Painters	60	65	5	1	4
Stationary Engineers	346	321	13	-3	16
Tailors	200	179	12	-3	15
Upholsterers	120	111	5	-1	6
Crafts, Kindred NEC	345	307	10	-5	15
Operatives	33,216	37,234	1,635	432	1,203
Operatives, Exc. Transport	26,192	29,410	1,363	348	1,015
Semiskilled Metalworking	2,644	2,935	112	32	80
Drill Press Operators	192	186	5	-1	6
Furnace Tenders	73	89	5	2	3
Grinding Machine Operators	376	372	12	-1	11
Lathe, Mill Mach. Operators	267	337	6	6	0
Metal Platers	157	171	7	2	5
Other Precision Mach. Operators	157	236	14	8	6
Punch Stamp Precs. Operators	249	277	12	3	9
Solderers	256	206	2	-5	7
Welders & Flame Cutters	909	1,089	38	16	22
Semiskilled Textiles	833	689	18	-15	34
Knitters, Loopers, & Toppers	70	60	1	-1	2
Spinners, Twisters, Winders	181	170	8	-1	9
Weavers	59	46	2	-1	3
Other Textile Operators	497	399	8	-10	18
Semiskilled Packing Inspecting	4,405	5,461	299	113	186
Checkers, Examiners, Etc. Mfg.	1,996	2,613	153	66	87
Graders & Sorters, Mfg.	101	89	4	-1	5
Meat Wrappers, Retail Trade	263	293	12	3	9
Packer, Wrapper, Exc. Meat, Prod.	2,022	2,439	128	44	84
Other Operatives, Exc. Transport	18,793	21,131	971	254	717
Insulation Workers	56	93	5	4	1
Assemblers	3,085	4,231	248	123	126
Bottling, Canning Operators	75	76	3	1	2
Clothing Ironers & Pressers	343	309	10	-4	14
Cutting Operators NEC	681	749	36	8	28
Dressmakers Exc. Factory	247	207	12	-5	17
Dry Wall Install. Lathes	72	110	5	4	1
Dyers	149	164	6	2	4
Filer, Polishers, Sander Buffer	371	388	16	2	14
Garage Workers, Gas Station Attendants	832	850	17	3	14
Laundry, Dry Cleaning Opers. NEC	393	469	30	8	22
Meat Cutters, Butchers, Exc. Mfg.	640	590	12	14	26

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Meat Cutters, Butchers	65	66	3	0	3
Milleners	9	7	1	0	1
Mixing Oprs.	191	179	3	− 2	5
Oilers, Greasers, Exc. Auto	72	64	2	0	3
Painters, Mfg. Articles	267	372	21	11	10
Photographers Process Workers	271	380	22	12	10
Riveters and Fasteners	82	88	4	1	3
Sawyers	126	146	10	3	7
Sewers and Stitchers	2,379	2,459	125	9	116
Furnace Tenders, Stokers Exc. Metal	190	184	6	—1	7
Winding Oprs. NEC	323	439	24	13	11
Misc. Machine Operators	4,148	4,503	176	39	137
Operatives NEC	3,155	3,539	146	42	104
Transport Equip. Operatives	6,540	7,018	236	52	184
Bus Drivers	854	811	29	− 5	34
Delivery & Route Workers	1,554	1,729	57	19	38
Fork Lift, Tow Motor Operators	482	575	20	10	10
R. R. Brake Operators	46	57	3	1	2
Taxi Drivers, Chauffeurs	699	667	28	− 4	32
Truck Drivers	2,708	2,979	88	29	59
Service Workers	30,037	36,293	2,155	672	1,483
Cleaning Service Workers	5,498	6,449	482	102	380
Lodging Quarters Cleaners Exec. P. R.	362	636	61	29	32
Bldg. Int. Cleaners, NEC	1,921	2,320	182	43	139
Janitors and Sextons	3,261	3,492	239	30	209
Food Service Workers	10,424	12,791	685	253	399
bartenders	671	786	50	13	37
Waiters' Assts.	395	525	21	14	7
Cooks, Exc. Private	2,105	2,629	152	56	96
Dishwashers	689	804	40	39	1
Food Counter, Fountain Workers	1,791	2,405	146	65	81
Waiters	3,504	4,098	188	64	124
Food Workers, NEC, Exc. Private	1,268	1,543	89	29	60
Health Service Workers	5,607	7,285	436	180	256
Dental Assistants	371	530	33	17	16
Health Aides, Exec. Nursing	621	961	71	2	69
Health Trainees	79	24	- 1	−4	3
Nurses Aides, Orderlies	2,709	3,283	167	61	106
Practical Nurses	1,825	2,486	168	70	98
Personal Services Workers	3,244	3,747	228	55	173
Atten. Recreation Amusements	162	173	10	1	9
Atten. Personal Service NEC	187	208	16	3	13
Barbers	314	305	18	—1	19
Boarding, Lodging, Housekeepers	70	77	10	1	9
Child Care Workers Exc. Private	343	708	71	39	32
Elevator Operators	90	61	4	0	4
Hairdressers, Cosmetologists	1,258	1,240	45	− 2	47
Housekeeper Exec. Private	326	354	21	3	18
School Monitors	116	142	5	3	2
Welfare Service Aides	169	216	14	5	9

Table V Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Protective & Service Workers	4,243	5,307	290	126	174
Crossing Guard, Bridgetenders	148	186	17	4	13
Firefighters	1,161	1,436	47	30	17
Guards	1,306	1,491	128	98	30
Police and Detectives	1,566	2,118	90	61	29
Sheriffs and Bailiffs	58	73	8	2	6
Private Household Workers	1,021	715	35	—34	69
Child Care Workers	358	251	4	—13	17
Housekeepers Private	168	96	4	— 8	12
Private Household Cleaners, Service	456	336	22	—14	36
Laborers, Exc. Farm	8,640	9,546	346	98	248
Animal Caretakers, Exc. Farms	289	375	22	10	12
Carpenters, Helpers	161	194	6	3	3
Constr. Laborers, Exc. Carp. Helpers	1,246	1,493	53	28	25
Freight Material Handlers	1,270	1,405	46	12	32
Garbage Collectors	169	247	13	9	4
Gardeners, Groundkeepers Exc. Farm	1,059	1,186	75	13	62
Stock Handlers	2,544	2,496	65	24	41
Vehicle Washers, Equip. Cleaners	457	456	13	0	13
Warehouse Laborers, NEC	283	285	7	0	7
Other Laborers	1,018	1,056	41	4	37
Farmers and Farm Workers	2,042	1,631	55	—45	100
Farmers and Farm Managers	807	673	39	—15	54
Farm Laborers Farm Supv.	1,235	960	16	—30	46
Farm Labor Supervisors	60	60	3	—1	4
Farm Labor Wage Workers	860	566	13	—41	28
Farm Labor Unpaid Family	312	330	16	1	15

VII. Individuals in Need of Manpower Services

Unemployment declined from an average of 27,800 in fiscal year 1975 (the recession year) to 13,400 in fiscal year 1979, and is expected to rise somewhat to 14,500 in fiscal year 1980, and even higher to 17,500 in fiscal year 1981. Because of the strong recovery from the last recession and the excellent industrial base, the area is not expected to do too badly in the current recession. Since unskilled workers make up a large part of the total unemployed, training should be made available to those in need of skills, especially since recessions over the past decade have been of short duration.

Table VI predicts a high participation rate for the nonwhites, male and female, in fiscal year 1981 in this labor area. At the same time, the unemployment rate of the nonwhites in all age brackets is also expected to be high. As for the whites, training programs could be geared to youths 16 through 19 years of age.

Table VI is a summary of job matching services at the local Division of Employment Security offices in the area, during March 1980. It shows that there are large numbers of individuals white and nonwhite, veterans and disadvantaged who could be in need of manpower services.

Table VI Job Matching Activities March 1980

APPLICANTS	ALL INDIVIDUALS	WOMEN	NONWHITE	VETERANS	DISAD-VANTAGED	JOB OPENINGS	MAR. 1980
Active Applicants*	18,249	10,472	4,982	2,223	10,794	Total Job Openings*	2,190
New Applicants (This Month)	2,802	1,322	499	346	461	Job Openings Rec. (This Mo.)	1,645

*Accumulative October 1, 1979 through March 1980

VIII. Entry Level Workers Supplied by Local Schools and Institutions

Vocational Education Planning and Workforce Information Report
Springfield - Chicopee - Holyoke, Massachusetts
Labor Market Area

The following tables and analysis present a review of the vocational educational programs in the Springfield-Chicopee-Holyoke labor market area relating graduates supplied by educational institutions with current and possible future demand for workers in the various three digit industries. Special emphasis is given to those industries least affected by the ups and downs of business cycles.

The Springfield-Chicopee-Holyoke labor market area has eleven vocational training facilities including skill centers, undergraduate and post-graduate schools (two year college level). The skill centers are federally funded (CETA) while the schools are financed by the municipalities. These facilities provide training in 43 different occupations (See Table VI for detailed summary of courses and enrollment).

A survey was made of these vocational educational institutions, recording those who graduated in June 1978 and 1979 in particular programs. Since most schools do a follow-up survey of recent graduates in early fall it was possible to determine the percentage of graduates who remained in the labor market area and became part of the workforce for which they were trained. Placement directors were then able to apply these percentages to the senior class enrollment in various courses and thereby project the numbers who can be expected to enter particular occupations in their labor market area.

According to the findings of the survey approximately 75 percent of all graduates usually continue to live in the labor market area and 66 percent are able to gain employment and/or elect to stay in the field for which they were trained. Not only should these figures be gratifying to the planners of vocational educational training in these communities but extremely helpful in preparing new courses or expanding existing programs.

Sixty-six percent of the expected graduates in 1980, which should be over 4,000, will supply a significant part of the workforce in the early 1980's. Even with a possible recession in 1980, most firms contacted in recent months expect a considerable amount of hiring over the next 12 months, if only for replacement purposes.

Table VII Summary of Vocational Training Courses
Springfield - Chicopee - Holyoke Labor Market Area

Course	(1) Total Graduates in June 1978	(2) Total Graduates in June 1979	(3) Estimated Graduates in June 1980	(4) Estimate of Percent Who Remain in Occupation	(5) Estimate of Percent Who Remain in Area
Accounting	30	42	40	26	90
Appliance Repairs	4	10	8	50	50
Auto Body Repairs	58	72	78	90	99
Auto Mechanics	132	135	162	78	96
Bio-Medical	15	11	17	100	55
Business Administration	84	86	85	50	95
Carpentry	45	44	52	62	93
Chemical Technician	3	3	5	100	100
*Commercial Program	1,524	1,612	1,759	49	59
Computer Technician	75	105	132	45	90
Correction	32	38	35	15	100
Cosmetology	59	45	50	90	97
Dental Hygienist	29	20	23	93	100
Dietetic Technician	13	11	12	90	90
Distribution Education	58	55	50	100	90
Drafting	13	6	9	70	85
Early Childhood	38	30	35	40	100
Electrical Technician	63	63	60	69	98
Electronics	224	241	279	71	84
Engineering Technician	2	2	4	67	100
Environmental Science Technician	13	10	8	50	100
Fashion Designing	40	55	75	92	97
Food Services	57	54	64	60	40
Graphic Arts	90	100	130	85	85
Health Services	35	34	33	70	95
Heat and Power	29	34	22	94	59
Landscaping	18	19	8	95	67
Law Enforcement Officer	83	61	60	45	100
Legal Assistant	22	36	11	75	75
Machine Operator	253	306	394	96	94
Medical Research Assitant	10	16	15	90	100
Plant & Bldg. Maintenance	36	48	60	95	95
Practical Nurse (LPN)	79	66	73	98	90
Nurses Aide	24	36	36	100	100
Radio and TV Repairs	13	16	21	30	40
Radiology Technician	18	11	12	91	50
Secretary (Executive)	103	107	113	95	83
Secretary (Legal)	47	24	32	85	75
Secretary (Medical)	63	40	50	98	70
Tool and Die Maker	30	40	55	100	95
Travel	32	38	55	95	27
Veterinary Science	12	7	8	71	77
Welding	70	80	92	90	90

* Bookkeeping, Secretarial, Typing and Stenographic

Table VIII is a summary of unfilled job openings as reported by the local DES offices in the labor market over the past four quarters using the last month of each period for review. These occupations were selected because the cumulative demand for trained workers by firms in these occupations was 30 or more over the 12 month period. Column A shows the number of unfilled job openings in each occupation at the end of the month in each quarter. Column B indicates the percentage of job openings unfilled 30 days or more at the end of the month in each quarter.

Apparently, vocational educational institutions furnish training programs in at least 71 percent of the occupations listed on "unfilled job openings" at DES offices during the past year (Compare Tables VII and VIII). The reason more jobs are not filled, given the supply of graduates from local training facilities, is that many of the jobs listed with the DES Job Bank that go unfilled usually require special training or experience.

Table VIII reveals a few areas where training might be made available within the Labor Market Area. These are:

(1) Sewing Machine Operators, Nongarment,

(2) Construction Workers, Other Than Carpenter,

(3) Truck Driver, and

(4) Material Handler (Including Tractor Operators).

Table IX is a comprehensive review of employment in various manufacturing and nonmanufacturing industries in the labor market area, classifying each industrial category as it is affected by the business cycle. The industries are classified as recession resistant, recession resilient or declining. The years 1974 through 1977 were used to observe employment during the year just prior to the 1975 recession, the year of recession, and the following two years of recovery. This table can be of help to school programmers and placement counselors in guiding graduates or anyone in search of a job concerning industries which might supply the greatest security.

Table VIII Summary of Unfilled Job Openings
Springfield - Chicopee - Holyoke Labor Market Area

		1978		1979		1979		1979	
		December		March		June		September	
		A No.	B Percent*	A No.	B Percent*	A No.	B Percent*	A No.	B Percent*
Dictionary of Occupational Titles									
D.O.T. Code	Occupational Title								
079-374-014	Licensed Practical Nurse	41	100	46	98	26	88	33	82
203-362-010	Clerk Typist	40	90	68	18	18	78	39	77
205-367-054	Survey Worker	0	0	2	50	68	1	19	37
206-362-010	File Clerk	2	100	2	100	1	0	8	12
209-562-010	General Clerk	14	86	13	46	11	60	18	78
210-382-014	General Bookkeeper	8	88	26	19	6	83	6	50
216-482-010	Accounting Clerk	5	60	3	33	3	67	8	50
219-362-010	Administrative Clerk	2	100	22	9	7	86	13	62
222-387-050	Shipping & Receiving Clerk	1	100	5	40	5	40	8	100
222-387-158	Stock Clerk	4	50	3	33	0	0	9	78
237-367-038	Receptionist	1	100	2	0	5	20	9	33
313-361-014	Cook (Hotels & Restaurants)	2	100	5	40	3	34	4	100
355-674-014	Nurses Aide	48	81	46	91	16	100	37	54
600-280-022	All Around Machinist	10	100	7	29	9	89	6	100
601-280-046	Die Maker	2	100	3	33	2	100	22	64
609-685-018	Production Machine Oper.	2	50	10	70	4	100	5	100
620-261-010	Auto Mechanic	7	86	11	55	8	62	14	71
706-684-022	Bench Assembler	3	0	0	0	26	4	34	38
726-684-018	Electronic Assembler	0	0	0	0	0	0	29	97
787-682-046	Sew. Mach. Opr. Nongarment	25	100	26	88	37	57	62	90
807-381-010	Auto Body Repairs	5	100	2	100	9	22	11	82
810-384-014	Arc Welders	2	100	2	100	3	100	4	100
860-381-022	Carpenter	7	43	1	0	0	0	14	14
869-664-014	Construction Worker I	58	100	63	17	5	80	11	73
809-687-026	Construction Worker II	29	100	35	20	8	100	5	100
899-381-010	Maintenance Bldg. Repairer	24	92	44	34	0	0	18	100
905-663-014	Truck Driver	3	100	1	100	7	57	8	62
929-887-030	Material Handler (including Tractor Operator	29	48	32	62	70	97	67	55

* Percent of total unfilled openings in particular month 30 days or more.

Source: D.E.S. ESARS Table 96

The Unemployment Rate, Unadjusted

	Springfield-Chicopee-Holyoke LMA	Mass.	U.S.
1974	6.4	7.2	5.6
1975	11.3	11.2	8.5
1976	9.0	9.5	7.7
1977	7.2	8.1	7.0
1978	5.3	6.1	6.0
1979	4.7	5.5	5.8

However, table VIII emphasizes the last recession (1975), the prior year and the following two years of recovery. The 1975 recession in this area was extremely severe with the unemployment rate averaging 11.3 percent as compared to 11.2 percent for the state and 9.0 for the nation. Because of diversification of its industries and excellent coöperation between the government (federal funding) and the business sector (private financing) this industrial area was able to recover faster than the state by 1976 and the country by 1978 (See table on page 36.)

Much of the growth since 1976 was in such capital goods producing industries as primary metals, fabricated metals, electrical equipment and especially non-electrical machinery. At this particular time one must be aware of the "Accelerator Economic Principle" i. e. those industries producing capital goods are usually the first to decline during a recession.

Table IX The Effect of Business Cycles on Employment in Various Industries

Sic Code	Industry Manufacturing	Classification	Employment by Place of Work			
			1974	1975	1976	1977
	FOOD					
202	Dairy Products	R	918	999	1,113	1,035
205	Bakery Products	RS	698	220	709	614
208	Beverages	D	427	254	204	199
	TEXTILES					
222	Synthetics	RS	150	21	24	207
225	Knitting Goods	D	445	385	327	255
229	Misc. Textiles	RS	861	696	747	786
	APPAREL					
233	Womens' & Girls' Outerwear	RS	612	547	479	516
234	Womens' & Girls' Underwear	RS	411	393	805	843
238	Misc. - Raincoats etc.	RS	369	355	368	365
239	Misc. Fab. Prods. (Curtains)	D	1,185	1,245	1,236	1,000
	WOOD					
244	Containers	R	74	123	127	136
249	Misc. Wood Products	D	676	410	384	416
	FURNITURE					
251	Furniture & Fixtures	D	295	235	256	240
254	Partitions, Shelving etc.	R	93	114	114	138
	PAPER					
264	Converted Paper	RS	4,491	3,917	4,181	4,438
265	Boxes	R	1,339	1,377	1,510	1,520
	PRINTING					
271	Newspaper	RS	1,456	1,420	1,501	1,481
273	Book Printing	D	169	131	127	126
275	Commercial Printing	RS	1,245	1,142	1,207	1,188
278	Blankbooks	RS	2,164	1,902	2,071	2,018
	SYNTHETIC					
282	Plastics, Synthetics	RS	2,850	2,401	2,462	2,745
284	Soap & Detergents	R	1,005	1,031	1,014	974
	RUBBER, PLASTIC PRODUCTS					
301	Tires	D	1,977	1,699	1,490	1,733
307	Misc. Plastic Products	R	1,433	1,506	1,636	1,652
317	Handbags & Wallets	RS	1,050	891	1,006	857

SOURCE: - DES, 202 Reports

CLASSIFICATION CODE
R - Resistant
RS- Resilient
D - Declining

(Con't)

Table IX The Effect of Business Cycles on Employment in Various Industries

Sic. Code	Industry Manufacturing	Classification	Employment by Place of Work 1974	1975	1976	1977
	ABRASIVES					
327	Concrete, Plastic Resin	RS	237	239	184	193
329	Abrasives	RS	385	239	366	360
	PRIMARY METALS					
331	Blast Furnaces	D	298	272	262	233
332	Iron & Steel Foundry	RS	692	420	564	555
336	Roll Draw & Extruded Metals	RS	258	269	246	253
	FABRICATED METALS					
341	Metal Cans & Containers	RS	-	237	216	287
342	Hand Tools	RS	1,896	1,799	1,881	2,070
344	Fabricated Structural Metals	RS	903	661	844	888
345	Screw Machine Products	RS	192	157	174	197
346	Forging	R	423	1,528	1,533	1,488
347	Coating & Engraving	RS	743	602	674	758
348	Ordnance	R	499	2,824	2,950	3,110
349	Misc. Products	RS	969	952	933	944
	NONELECTRICAL MACHINERY					
354	Metal Working Machinery	RS	1,727	1,365	1,332	1,524
355	Special Machinery	RS	1,508	1,470	1,665	1,696
356	General Industrial Machinery	D	2,641	2,242	1,807	1,779
357	Office & Computer Equip.	R	21	1,480	1,794	2,091
359	Misc. Machinery	D	1,354	1,414	1,381	894
	ELECTRICAL MACHINERY					
363	Household Appliances	RS	10	11	293	260
364	Electrical Lighting	RS	137	425	397	340
366	Communication Equipment	D*	51	300	235	225
367	Electronic Components	RS	1,985	826	1,106	1,611
	TRANSPORTATION EQUIP.					
371	Motor Vehicle Parts	RS	1,290	1,210	1,231	1,444
372	Aircraft Parts	RS	240	134	112	202
375	Bikes & Parts	RS	882	412	524	605
	INSTRUMENTS & PHOTOGRAPHER EQUIP.					
383	Optical, Instruments & Parts	R	424	423	427	444
386	Photographic Equip. & Parts	RS	392	456	302	313
	GAMES, ATHLETIC EQUIP. ETC.					
394	Toys, Games, Athletic Goods	RS	4,306	3,820	3,876	3,865
399	Misc. Mfgd. Products	RS	2,143	1,727	1,836	1,880

*Automation - Capital Intensive Industry

(Con't)

Table IX The Effect of Business Cycles on Employment in Various Industries

Sic. Code	Industry Manufacturing	Classification	Employment by Place of Work 1974	1975	1976	1977
	CONTRACT CONSTRUCTION					
152	General Contractor Single Homes	D	2,345	984	572	618
161	Highway Street Construction	D	459	338	277	287
171	Plumbing, Heating & Air Cond.	D	974	810	770	761
172	Painting & Paper Hanging	D	325	256	239	218
173	Electrical Work	D	934	783	606	574
174	Masonry, Tile Work, Plastering	RS	509	609	517	563
175	Carpentry & Flooring	D	266	179	161	158
176	Roofing	RS	378	338	334	351
	TRANSPORTATION, COMMUNICATIONS & UTILITIES					
411	Local Passenger Transportation	R	197	512	565	488
412	Taxicabs	RS	234	251	230	230
413	Intercity Rural Passenger Transp.	D	328	298	297	275
415	School Buses	R	407	551	606	732
421	Trucking	RS	2,271	2,039	2,160	2,373
471	Freight Forwarding	D	125	118	38	8
472	Arrangements for Transportation *	RS	199	207	206	228
481	Telephone Communications	D	2,523	2,297	2,204	2,177
483	Radio & TV Broadcasting *	RS	331	328	349	401
491	Electric Services	RS	944	869	838	878
492	Gas Production & Distribution	R	182	419	434	441
	TRADE					
501	Auto Parts	R	730	847	811	819
502	Furniture & Home Furnishings	D	811	114	138	158
506	Electrical Goods	R	326	339	361	387
507	Hdw., Plumb. & Heat. Supplies & Equip.	R	727	912	946	922
508	Machinery, Equip. & Supplies (ex. Comp.)	R	1,355	1,372	1,421	1,541
509	Misc. Dur. Goods & Jewelry Scrap	RS	3,107	298	281	335
521	Lumber & Bldg. Material	RS	802	657	656	677
523	Paint, Glass & Wallpaper	R	114	141	144	141
525	Hardware Stores	RS	448	293	288	303
531	Department Stores	D	5,572	4,967	4,759	4,401
554	Gas Stations (serv.)	RS	1,572	1,769	1,521	1,655
581	Eating & Drinking Places	RS	11,467	9,834	9,929	10,304
591	Drug Stores	RS	1,342	1,356	1,381	1,315
592	Liquor Stores	D	964	943	931	908
	FINANCE, INSURANCE, REAL ESTATE					
602	Commercial Banks	RS	2,290	2,368	2,292	2,240
603	Mutual Savings Banks	R	1,034	1,112	1,210	1,287
631	Life Insurance	R	3,176	3,666	3,752	3,222
632	Fire, Marine & Casualty Ins.	RS	1,130	447	325	443
641	Ins. Agents, Brokers, & Service	RS	839	852	842	862
651	Real Estate Operators	RS	476	477	460	481
653	Real Estate Agents & Mgrs.	RS	476	453	463	590
	SERVICES					
701	Hotels, Motels & Tourists Courts	RS	1,571	1,412	1,319	1,473
721	Personal Services - Laundry Etc.	RS	948	972	953	946
723	Beauty Shops	D	946	886	876	874
734	Services to Other Buildings	RS	1,317	1,263	1,321	1,365
739	Misc. Bus Services	RS	2,317	1,721	2,010	2,112
753	Automotive Repair Shops	R	923	954	981	983
799	Amusements & Recreations	RS	1,168	1,096	1,100	1,270
801	Offices of Physicians	R	1,338	1,444	1,499	1,500
802	Offices of Dentists	R	754	774	798	811
806	Hospitals	RS	8,444	9,878	7,481	8,529
809	Health & Allied Services	R	204	214	304	539
811	Legal Services	RS	723	693	711	749
822	Colleges, Universities, Prof Schools	RS	3,951	3,727	4,208	4,331
864	Civic, Social & Fraternal Associations	RS	1,235	1,149	1,230	1,072

Despite all signs of a business slump in early 1980 these firms could profit from increased business from high-technology industries in this state and the rapidly growing energy producing industries in the sunbelt. If this happens then many of the hard goods industries considered resilient in the 1974-1977 period could become resistant in the 1980's.

Table X shows the various three digit manufacturing industries which employ workers trained in the occupations furnished by the eleven vocational educational training institutions in this labor market area. It also shows those industries which employ workers trained in the building trades (carpenters, electricians, plumbers, and painters). It should be noted that these workers are only required to go through an apprenticeship program when entering the construction industry, not in manufacturing.

Occupations and
Related Industries
Table X

		Mfg. Inds.	Dairy Prods.	Bakery Prods.	Beverages	Synthetic Textiles	Knitting Goods	Misc. Textiles	Womens' Apparel	Misc. Fab. Prods.	Wood Containers	Misc. Wood Prods.	Furn. & Fixtures	Partitions & Shelves	Converted Paper	Paper Boxes	Newspapers	Book Printing
OCCUPATIONS																		
Accounting		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Business Administration		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Chemical Tech.					✓	✓	✓							✓	✓			
Commercial Program		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Computer Techician		✓			✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	
Drafting														✓	✓			
Elect. Tech.														✓	✓			
Electronics																		
Engineering Tech.																		
Food Service		✓	✓													✓	✓	
Graphic Arts																✓	✓	
Heat & Power		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
Machine Operator					✓	✓	✓			✓	✓	✓	✓	✓	✓			
Plant & Bldg. Maint.		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Secretary (Exec.)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
Tool & Die Makers or Tool Programmers										✓	✓	✓						
Welders																		
BLDG. TRADES USED IN Mfg. Inds.																		
Carpenter					✓	✓	✓			✓	✓	✓		✓	✓			
Electrician					✓	✓	✓							✓	✓			
Painter (usually Prod. type)					✓	✓	✓			✓	✓	✓						
Plumber (usually Pipefitters)					✓	✓	✓							✓	✓			

Occupations and
Related Industries
Table X

OCCUPATIONS	Commercial Print.	Blankbooks	Plastics, Synthetics	Tires	Misc. Plastics Prods	Handbags & Wallets	Concrete and Plastic Resin	Abrasives	Blast Furnace	Iron & Steel Found.	Roll & Ext. Metals	Metal Containers	Hand Tools	Fab. Metal Structures	Screw Mach. Prods.	Forging	Casting & Engrav.	Ordnance
Accounting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Business Admin.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chemical Tech.			✓		✓	✓	✓	✓					✓	✓	✓	✓	✓	✓
Commercial Prog.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Computer Tech.	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drafting					✓							✓	✓	✓	✓	✓	✓	✓
Elec. Tech.					✓								✓					✓
Electronics													✓					
Engineering Tech.								✓				✓	✓	✓	✓	✓	✓	✓
Food Service														✓	✓	✓	✓	✓
Graphic Arts	✓	✓																
Heat & Power	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Machine Oper.				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Plant & Bldg.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Maintenance																		
Secretary (Exec.)	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓
Tool & Die Makers or Tool Prog.					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Welders								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BLDG. TRADES USED IN MFG. INDS.																		
Carpenter			✓			✓		✓					✓	✓	✓	✓	✓	✓
Electrician				✓	✓			✓				✓	✓	✓	✓	✓	✓	✓
Painter (usually Prod. Type				✓									✓					
Plumber (usually Pipefitters)				✓				✓					✓	✓	✓	✓	✓	✓

Page 3

Occupations and
Related Industries
Table X

OCCUPATIONS	Misc. Fab. Products	Metal Work Products	Spec. Machinery	Gen. Ind. Modernizing	Office & Computers	Misc. Machinery	Household Appliances	Elec. Lighting	Communications Eq.	Elec. Components	Motor Vehicle Pts.	Aircraft Plants	Bicycle Pts.	Optical Inst.	Photographic Eq.	Toys, Games, Sports, Eq.	Misc. Mfg. Prods.		
Accounting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Business Admin.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Chemical Tech.	✓																		
Commercial Prog.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Computer Tech.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Drafting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Elec. Tech.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Electronics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Engineering Tech.	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓		
Food Service	✓																		
Graphic Arts																			
Heat & Power	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Machine Oper.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Plant & Bldg. Maint.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Secretary (Exec.)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Tool & Die Makers or Tool Programmers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Welders	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
BLDG. TRADES USED IN MFG. INDS.																			
Carpenter	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Electrician	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Painter (usually Productive Type)		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓		
Plumbers (usually Pipefitters	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓		

IX. Supply and Demand of Labor in High Demand Occupations

A study of supply and demand of labor in several high demand occupations in the Springfield-Chicopee-Holyoke labor market area has been completed. Occupations selected were: machine operator, welder, licensed practical nurse, secretary, stenographer, typist and bookkeeper, printer, carpenter, auto body repairer, and auto mechanic. Surveys were made in a number of firms and institutions in which there is a high net demand for these particular occupations. Looking at past and present payrolls and demand for products or services, heads of personnel were able to project their needs for the coming year, whether it be due to replacement or expected growth.

In addition, a survey was made of the vocational educational institutions in the area, recording those who graduated in June 1978 and 1979 in their respective courses. Since most schools do a follow-up of recent graduates in early fall it was possible to determine the percentage of graduates who remained in the area and became part of the labor force for which they were trained. Placement directors were then able to apply these percentages to junior and senior class enrollments in various courses and thereby project the numbers who can be expected to enter particular trades in their labor market area.

Machine Tool Operators

(D.O.T. 602., 603., 604., 605., and 606.)

Nature of Work*

Machine tool operators use machine tools such as lathes, drill pressers, milling machines, grinding machines, and punch presses to shape metal to precise dimensions. Although some operators can work with a wide variety of machine tools, most specialize in one or two types.

Operators fall into two broad skill categories - semiskilled and skilled. Semiskilled operators are essentially machine tenders who perform simple, repetitive operations that can be learned relatively quickly. Skilled operators can perform varied and complex machining operations. Both skilled and semiskilled operators have job titles related to the kind of machine they operate, such as milling machine operator and drill press operator.

Most machine tool operators fall into the semiskilled category. Their jobs vary according to the type of machine they work with; however, there are many tasks common to most machine tools. Typically, semiskilled operators place rough metal stock in a machine tool on which the speeds and operation sequence already have been set by skilled workers. By using special, easy-to-use gauges they watch the machine and make minor adjustments. However, they depend on skilled machining workers for major adjustments when their machine is not working properly.

The work of skilled machine tool operators is similar to that of all-round machinists, except that it usually is limited to only one type of machine and involves little or no hand fitting or assembly work. Skilled machine tool operators plan and set up the correct sequence of machining operations according to blueprints, layouts, or other instructions. They adjust speed, feed, and other controls, and select the proper cutting instruments or tools for each operation. Using micrometers, gauges, and other precision measuring instruments, they compare the completed work with the tolerance limits given in the specifications. They also may select cutting oils to keep the metal workpiece from getting too hot and lubricating oils to keep the machine tools running smoothly.

Working Conditions*

Most shops are clean and work-places are well-lighted. Machine tool operators must use protective glasses to protect their eyes from flying metal particles. They cannot wear loose-fitting garments as these might get caught in the machine, injuring the operator or causing damage to the machine.

Most machine tool operators belong to unions including the International Association of Machinists and Aerospace Workers; the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America; the International Union of Electrical, Radio and Machine Workers; the International Brotherhood of Electrical Workers; and the United Steelworkers of America.

* Source: Occupational Outlook Handbook
1978 - 1979 Edition

Supply and Demand of Machine Tool Operators
In The
Springfield-Chicopee-Holyoke Labor Market Area
August 1978

Of the machine trades, machine tool operators (drill press, lathes, boring and others) are in greatest demand by firms in this area. These are the volume producers in most plants. The trade schools are very well aware of this and are programmed to train machine tool operators rather than all around machinists or tool and die makers. Many of the larger firms have in-house programs whereby some machine tool operators are trained to become all around machinists or tool and die makers. However, many firms opt to farm out the making of tools and dies to specialty machine shops.

Plants use various sources for recruitment of machine operators with preference given to direct application, followed by public employment agencies, newspaper advertising, and local trade schools.

Those employed in this occupation usually commute to work from a distance of five or more miles from the plant but within the labor market area.

There are no strict educational requirements for this occupation, however most firms prefer a graduate from a vocational school or a skilled center. Minimal experience varies from zero to twelve months with many firms looking for talent and supplying their own training and on-the-job experience.

Machine tool operators are paid according to hourly or incentive rates, or on a basis of a combination of both methods.

Minimum starting wages vary from $2.85 an hour to $5.71, but average $4.06. At the end of one year the average goes up to $5.13. The average maximum wage for the occupation is $6.70 with the highly skilled earning as much as $8.00 an hour.

Between 1976 and 1977, employment in this occupation in the six plants surveyed increased from 972 to 1,094, up by 12.6 percent, but by August 1978 it dropped to 1,002, a loss of 8.4 percent. By August 1978, firms employing large numbers of machine operators felt that conditions were levelling off in their respective industries, and they foresaw a period (12 to 18 months) of stabilization in employment, with most new hirings for replacement purposes only.

Actual growth in demand for machine operators could be hampered by a possible recession in 1979, even if it be slight and short-lived. The next few years will see more and more plants investing in numerically controlled (computerized) equipment, further reducing demand for machine operators.

In June 1978, 67 students graduated from the four vocational, technical high schools in the Springfield, Chicopee, Holyoke Labor Market Area, after having completed a training program as machine tool operators. Many of these students have acquired valuable experience by working part-time or in the Coop Plan while attending school. In September 1978, 186 completed a training program at the skilled center in Springfield. About 90 percent of the above remained in the trade and resided in the labor market area.

Looking at the senior and junior classes at the four vocational technical schools, graduates in the machine tool operators' course will drop to 50 in 1979 but climb dramatically to 90 in 1980. The local skilled center is planning to train (pending funding) 256 more operators in 1979 and 300 in 1980. However, it is conceivable that firms in the area will not be able to absorb that many additional machine operators, and this could create a labor surplus by early 1980.

Since most schools surveyed have excess capacity to train in this occupation, it might be advantageous to use these facilities to upgrade those skills required by a constantly changing industry, with its new techniques and faster, more versatile equipment.

Welders

(D.O.T. 810 through 819.887)

Nature of Work*

Welding consists of joining pieces of material, usually metal, by fusing or bonding them together. It is the most common method of permanently connecting metal parts that go into the construction of automobiles, spacecraft, ships, household appliances, construction equipment, and thousands of other products. Beams and steel reinforcing rods in bridges, buildings, and roads frequently are joined by welding. In addition, a growing number of plastic parts are welded to make a variety of products.

Welding processes differ in the way heat is created and applied to the parts being joined. In arc welding, the most frequently used process, heat is created as electricity flows across a gap from the tip of the welding electrode to the metal. In resistance welding, heat is created by resistance to the flow of current through the metal. In gas welding, the combustion of burning gases melts the metal. As part of many welding processes, filler materials, called welding electrodes or welding rods, are melted and added to the joint to give it greater strength. When the heat is removed, the metal and filler material solidify and join the parts. It is the welder's job to control the heat and the weld pool size and to add the filler material so that together they form a strong joint.

Since welding processes differ and are used for a wide variety of purposes the equipment used and the skill levels of welders vary. Jobs vary from those of highly skilled manual welders who can use gas and electric are welding equipment in more than one position and who can plan their work from drawings or other specifications to those of unskilled welding machine tenders who simply press a button to start the welding machine. Skilled welders know the material characteristics and properties of steel, aluminum, and other metals and can weld joints in all positions.

Working Conditions*

Welders and cutters use protective clothing, safety shoes, goggles, helmets with protective lenses, and other devices to prevent burns and eye injuries. Although lighting and ventilation usually are adequate, welders occasionally work in the presence of toxic gases and fumes created when some metals melt. They are often in contact with rust, grease, and dirt on metal surfaces. Welding machine operators are largely free from the hazards associated with manual welding. A face shield or goggles generally offer adequate protection to these workers.

Many welders are union members. However, because welding also is done by other craft workers, for example by pipefitters, and only recently has received recognition as a distinct craft, welders belong to many different unions. Among these are the International Association of Machinists and Aerospace Workers; the International Brotherhood of Boiler-makers, Iron Shipbuilders, Blacksmiths, Forgers and Helpers; the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America; the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada; and the United Electrical, Radio and Machine Workers of America (Ind.).

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* Source: Occupational Outlook Handbook
1978-1979 Edition

Supply and Demand of Welding Machine Operators (Welders)
In The
Springfield-Chicopee-Holyoke Labor Market Area
August 1978

In their recruitment of welders, plants show preference for public agencies such as the Massachusetts Division of Employment Security and educational institutions (skilled centers or vocational schools). Much of the hiring is done from direct applications or referrals from within the company. Newspaper advertising is used as a last resort.

Those employed in this occupation usually commute to work from a distance of five or more miles but most live within the labor market area.

The only educational requirement is basic English. Firms usually prefer applicants with one or more years of experience. In lieu of experience, preference is shown for those who have completed a course at a local vocational school or skilled center.

The average entry wage for welders in this labor market area is $3.51 an hour. At the end of one year the average wage goes up to $4.16 an hour. Average maximum earnings is $6.78 with highly skilled workers making as much as $7.85 an hour.

Between August 1976 and August 1978, employment of welding machine operators in the plants surveyed rose from 75 to 92, up 22.7 percent.

Firms in this area anticipate little or no growth in demand for welders over the year due to the expected slowdown in the economy. Since there is a large turnover of help in this occupation (in some firms as much as 20 percent), most hiring in 1979 will be due to replacement.

The vocational, technical schools surveyed showed 20 graduated trained as welders in June 1978. Approximately the same number should graduate in 1979 and 1980. However, the skilled center trained 51 welding machine operators in 1978, and expect to increase the class to 60 in 1979 (if funding permits) and 72 in 1970. The survey revealed that most of the operators trained in the local schools or skilled center remained in the area after graduation. This should take care of demand in this occupation in the labor market area without creating a surplus over the next two years.

LICENSED PRACTICAL NURSES

(D.O.T. 079.378)

Nature of Work*

Licensed practical nurses (LPN's) help care for the physically or mentally ill and infirm. Under the direction of physicians and registered nurses, they provide nursing care that requires technical knowledge but not the professional education and training of a registered nurse.

In hospitals, LPN's provide much of the bedside care needed by patients. They take and record temperatures and blood pressures, change dressings, administer certain prescribed medicines, and help patients with bathing and other personal hygiene. They assist physicians and registered nurses in examining patients and in carrying out nursing procedures. They also assist in the delivery, care, and feeding of infants. Some practical nurses work in specialized units as intensive care units, recovery rooms, or burn units. They perform special nursing procedures and operate sophisticated equipment to provide care for seriously ill or injured patients. In some instances, experienced LPN's supervise hospital attendants and nursing aides.

LPN's who work in private homes provide day-to-day patient care that seldom involves highly technical procedures or complicated equipment. In addition to providing nursing care, they may prepare meals, see that patients are comfortable and help keep up their morale. They also teach family members how to perform simple nursing tasks.

In doctors' offices and in clinics, LPN's prepare patients for examination and treatment, administer medications, apply dressings, and teach patients prescribed health care regimens. They also may make appointments and record information about patients.

* Source: Occupational Outlook Handbook
1989 - 1979 Edition

In 1976, over 1,350 State-approved programs provided practical nursing training. Trade, techinical, or vocational schools offered more than half of these programs. Other programs were available at junior colleges, local hospitals, health agencies, and private educational institutions. Several programs operated by the Army for military personnel also were state-approved for practical nurse training. Graduates from these programs are eligible for licensure.

Classroom instruction covers nursing concepts and principles and related subjects including anatomy, physiology, medical-surgical nursing, pediatrics, obstetrics, psychiatric nursing, administration of drugs, nutrition, first aid, and apply their skill to an actual nursing situation through supervised clinical experience - usually in a hospital.

Those who wish to become licensed practical nurses should have a deep concern for human welfare. They must be emotionally stable because working with sick and injured people sometimes can be upsetting.

As part of a health care team, they must be able to follow orders and work under close supervision. Good health is very important, as is the physical stamina needed to work while standing a great deal.

Advancement opportunities are limited without additional training or formal education. In-service educational programs prepare some LPN's for work in specialized areas, such as post-surgery recovery rooms, or intensive care units. Under career ladder programs, nurses' aides may attend training to become LPN's while continuing to work part-time. Similarly, in some cases, LPN's may prepare to become registered nurses while they continue to work part-time.

Supply and Demand of Licensed Practical Nurses (LPN's) In The Springfield-Chicopee-Holyoke Labor Market Area

August 1978

Hospitals use several sources for recruitment of LPN's with preference given to educational institutions (10 month course), followed by newspaper advertising, the Massachusetts Division of Employment Security, referrals from within the facility, and direct applications.

In the institutions surveyed, about half of the LPN's lived within five miles of the hospital and the balance beyond five miles but usually within the labor market area.

Educational requirements for an LPN consists of completing a course (usually 10 months) at an accredited school, passing a state board examination and receiving a license. Their license must be renewed every two years. Beginning January 1, 1983 "every person seeking renewal or licensing hereunder shall provide evidence of such continuing education as the board shall require by regulation, unless the board accepts the training and experience of any such person in lieu of said continuing education requirements".* However, there is an attempt being made by the National Association of Registered Nurses to eliminate both the LPN program and the three year registered nurse training program now being given at hospitals by 1985. This will leave only the two year college registered nurse program to train technicians and the four year college BA degree program to train specialists and administrative personnel. This will require state legislature approval and will be very difficult to pass.

There is no specific time experience required for LPN's. However, in some hospitals the typical new person hired has one or more years of experience.

Minimum starting wages for LPN's vary only slightly, from $4.29 to $4.55 an hour. The average wage of the sample taken is $4.83 an hour. Average maximum earnings for this occupation is $5.12 an hour with some earning $5.50.

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* Source: Commonwealth of Massachusetts Digest of Statutes, Relating to the Board of Registration in Nursing. In effect on 2/15/1972.

Between August 1976 and 1978 employment of LPN's in the institutions surveyed rose from 608 to 643, up only 5.8 percent over two years. Except for replacements, employment of LPN's in hospitals appears to have stabilized. Future growth will depend largely on the effects of mergers planned for hospitals in the area.

The survey of four Schools of Practical Nursing in the area showed 138 graduated in 1978. The same number should graduate in 1979 and in 1980. About 95 percent are expected to remain in this occupation and practice in the area. In 1979, replacements, slight growth, and the constant need for LPN's in nursing homes should gobble up the entire supply of graduates and those who move into the area in search of work.

Long-Term Employment Outlook for Clerical Workers

Employment of clerical workers is expected to increase faster than the average for all occupations through the mid-1980's (see Graph A). This is largely due to the growing national trend in service-oriented industries in recent years. Between 1970 and 1978 in the Springfield-Chicopee-Holyoke labor market areas nonmanufacturing payrolls grew by 13.5 percent, from 140,100 to 159,000, while factory employment rose by 5.9 percent, from 62,500 to 66,200. In addition to the new clerical jobs created by this growth, many other openings will occur as employees die, retire, or leave their jobs.

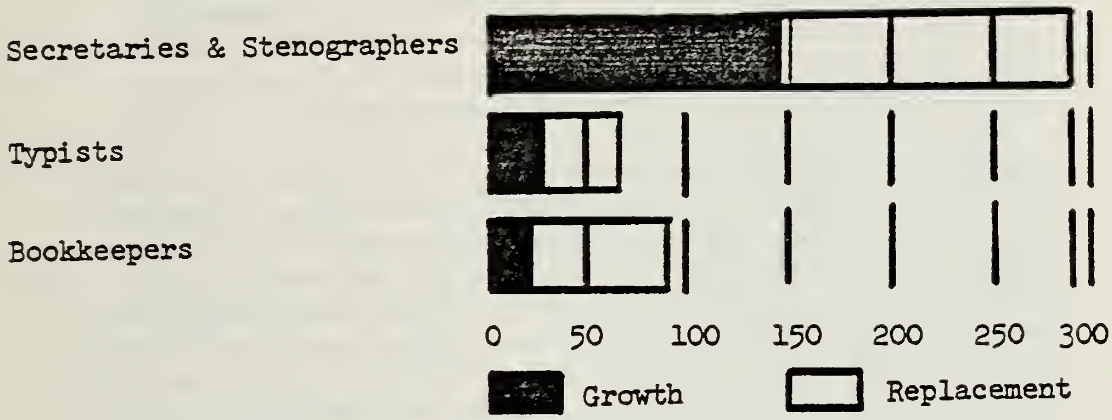
Future growth in the number of clerical workers is expected to result primarily from the increasing paperwork that will accompany the expansion of large and complex organizations. A great deal of this paperwork is handled by computer. The impact of automation on office equipment and procedures is considerable, but it is more important in some jobs than in others. In general, long-term employment prospects are best in clerical occupations that are not affected by automation, in those that are compatible with computer applications, and in jobs that have developed as a result of new technologies.

GRAPH A

Openings for secretaries are expected to be more than three times the number of openings for any other clerical occupation through 1985

NATIONAL

Selected clerical occupations
Average annual openings, 1976-85 (in thousands)



Source: Bureau of Labor Statistics

CLERICAL OCCUPATIONS

Secretaries and Stenographers (D.O.T. 201.268 and .368, 202.388, and 209.138)

Nature of the Work

The efficiency of any organization depends upon secretaries and stenographers, who are at the center of communications within their firm. They transmit information to the staff and to persons in other organizations.

Secretaries (D.O.T. 201.368) relieve their employers of routine duties so that they can work on more important matters. Although most secretaries type, take shorthand, and deal with callers, the time spent on these duties varies in different types of organizations.

In offices where dictation and typing are handled in word processing centers, administrative secretaries handle all other secretarial duties. They often work in clusters of three or four so that they can readily help each other. Because they are released from dictation and typing, they can serve several members of the professional staff. Their duties range from filing, routing mail, and answering telephones to more responsible jobs such as answering letters, doing statistical research, and writing reports.

Some secretaries are trained in specific skills needed in certain types of work. Medical secretaries prepare case histories and medical reports; legal secretaries do legal research and help prepare briefs; and technical secretaries assist engineers or scientist in drafting reports and research proposals. Another specialized secretary is the social secretary (D.O.T. 201.268), who arranges social functions, answers personal correspondence, and keeps the employer informed about all social activities.

Stenographers (D.O.T. 202.388) take dictation and then transcribe their notes on a typewriter. They may either take shorthand or use a stenotype machine that prints symbols as certain keys are pressed.

General stenographers, including most beginners, take routine dictation and do other office tasks such as typing, filing, answering telephones, and operating office machines.

Experienced and highly skilled stenographers take difficult dictation and do more responsible clerical work. They may sit in on staff meetings and give a summary report or a word-for-word record of the proceedings. They also supervise other stenographers, typists, and clerical workers.

Technical stenographers must know the terms used in a particular profession. They include medical, legal, and engineering or scientific stenographers. Some experienced stenographers take dictation in foreign languages; others work as public stenographers serving traveling business people and others.

Shorthand reporters are specialized stenographers who record all statements made in a proceeding. Nearly half of all shorthand reporters work as court reporters attached to courts of law at different levels of government. They take down all statements made at legal proceedings and present their record as the official transcript. Many other shorthand reporters work as free-lance reporters who record out-of-court testimony for attorneys, meetings and conventions, and other private activities. Still others record the proceedings in the Congress of the United States, in State legislatures, and in both State and Federal agencies.

Most reporters dictate notes on magnetic tapes that a typist can transcribe later. Because the reporter's transcript is the official record of a proceeding, accuracy is vitally important.

Source: Occupational Outlook Handbook
1978 - 1979 Edition

TYPISTS
(D.O.T. 203.138 through .588; 208.588; and 209.382 through .588)

Nature of the Work

A rapid flow of written communication is essential to the modern office. The typist helps to maintain this flow by making neat typed copies of handwritten, printed, and recorded words.

Beginning or junior typist usually type headings on form letters, copy directly from handwritten drafts, and address envelopes. Often, they do other office tasks, including answering telephones, filing, and operating office machines such as copiers and calculators.

More experienced typists do work that requires a high degree of accuracy and independent judgment. Senior typists work from rough drafts which are difficult to read or which contain technical material. They may plan and type complicated statistical tables, combine and rearrange materials from different sources, or prepare master copies to be reproduced on copying machines.

Clerk typists (D.O.T. 209.388) combine typing with filing, sorting mail,answering telephones, and other general office work. Varitypists (D.O.T. 203.582) produce master copies, such as stencils, on machines similar to typewriters.

Transcribing machine operators (D.O.T. 208.588) type letters and reports as they listen to dictation recorded on magnetic tape. Other typists who have special duties include policy writers (D.O.T. 203.588) in insurance companies, waybill clerks (D.O.T. 209.588) in railroad offices, and mortgage clerks (D.O.T. 203.588) who work in banks.

In some offices, many typists are grouped in a specialized word processing center that handles all the transcription and typing for several departments. These workers, usually called correspondence secretaries, operate various kinds of high-speed typewriters equipped with a programmed memory which enables them to produce final copy with a minimum of retyping.

BOOKKEEPING WORKERS
(D.O.T. 210.368 through .588, 216.388, and 219.388 and .488)

Nature of the Work

Every business needs systematic and up-to-date records of accounts and business transactions. Bookkeeping workers maintain these records in journals, ledgers, and on other accounting forms. They also prepare periodic financial statements showing all money received and paid out. The duties of bookkeeping workers vary with the size of the business.

In many small firms, general bookkeepers (D.O.T. 210.388) are the only bookkeeping workers. They analyze and record all financial transactions, such as orders and cash sales. They also check money taken in against that paid out to be sure accounts "balance", and calculate the firm's payroll. Although most of this work is done by hand, bookkeeping workers generally use simple office equipment such as calculating machines. General bookkeepers also prepare and mail customers' bills and answer the telephone.

In large businesses, a number of bookkeepers and accounting clerks work under the direction of a head or supervisory bookkeeper. In these organizations bookkeepers often specialize in certain types of work. For example, some prepare statements on a company's income from sales or its daily operating expenses. Others may post payments and charges on cards using bookkeeping machines or feed information on accounts receivable and accounts payable into the computer. Accounting clerks (D.O.T. 219.488), sometimes known as bookkeeping clerks, perform a variety of routine duties. They record details of business transactions, including deductions from payrolls and bills paid and due. They also may type vouchers, invoices, and other financial records.

Supply of Clerical Workers - April 1979

The five schools in this labor market area which specialize in business have comprehensive curriculum which prepare students for secretarial work, stenography, typing, and bookkeeping. In June 1978, 1,350 students graduated from these schools. Based on junior and senior class enrollment, this figure should increase by 100 in 1979 and another 100 in 1980. About 50 percent of these graduates are expected to remain in this area and use their clerical skills. Furthermore, 250 students completed a similar commercial program in 1978 at the Hampden County Skilled Center in Springfield. Pending funding this center is expected to train 260 in 1979 and 270 in 1980 in this program. Apparently the schools are training enough clerical workers to meet the needs of industry, at least at the entry level.

Although DES is not the prime source for recruitment of clerical help by employers in this labor market area, it is a significant source. During the first four months of fiscal year 1979, 370 applicants registered as secretaries at the DES offices in this labor market area. Since only 29 were recorded in January, the number of new applicants appear to be, at least temporarily slowing down. By the end of January, there were still 219 active applicants on file seeking secretarial positions. Many were not able to meet the requirements of jobs made available through the Division of Employment Security. This is becoming more and more of a problem in a fast-changing, technological, industrial society. Some were women reentering the labor market after several years without updating their skills. Others were women looking for part time work. In January the DES in this labor market area supplied industry with 25 secretaries.

Few applicants register at DES for stenographic work. With good skills those that do are easily placed.

During the first four months of fiscal year 1979, 864 applicants registered as typists at the DES. Only 51 applied in January, representing a sharp decline. However, during the same month 121 positions were filled.

In the same four months 185 applicants registered as bookkeepers at DES. Only 11 filed in January. In January 16 positions were filled.

Most firms surveyed early this year feel that there are enough clerical help available in this labor market area to meet their needs.

DEMAND FOR CLERICAL WORKERS

Of the clerical occupations, secretaries are in greatest demand by employers surveyed in the labor market area. Secretaries make-up 40 percent of the cluster, followed by bookkeepers (27 percent), typists (24 percent), and stenographers (9 percent). Bookkeepers are high in demand in this area because of the home office of one large insurance company.

Firms and institutions use various sources for recruitment of clerical help, with preference given to direct applications, followed by newspaper advertisements, internal recruitment, and some use of local schools and the Massachusetts Division of Employment Security.

Those employed in those occupations usually commute an average distance of five or more miles to work but they usually live within the labor market area.

Most employers require at least a high school education for these occupations. Minimal experience requirements for new hires varies from six to 12 months; however typical experience for new hires is between 12 and 24 months.

Starting wage for secretaries varies from a low of $3.25 an hour to a high of $5.70. Those making $5.70 are usually highly trained and capable of taking on administrative duties. The average maximum wage in this occupation is $5.30 an hour, with some earning as much as $8.00 an hour.

Stenographers usually work at a lower wage level than secretaries but many gradually raise themselves up to secretarial positions. Starting wages for stenographers varies from a low of $3.10 per hour to a high of $5.07. Those receiving $5.07 an hour usually have special technical skills (medical, legal, or scientific). The average maximum wage for stenographers is $4.65 an hour, with some earnings as much as $7.38 an hour.

Starting pay for typists range from $2.95 to $4.50 an hour. Those receiving $4.50 are definitely the highly experienced. The average maximum wage in this occupation is $3.95 an hour with some earnings as high as $4.65.

Hourly wages for bookkeepers vary from $3.00 to $4.80. The average maximum hourly wage is $4.50 with some making as much as $5.20 an hour.

The total number of clerical jobs in this area rose only slightly between 1977 and 1978, by five percent. The recent survey indicated that clerical positions are expected to rise by 11.7 percent in 1979. This estimate is optimistic in view of continued reference to a coming recession in 1979 by leading economists. However, most of the real growth will be limited to the insurance industry, and to one large firm in particular. The largest percentage of new hires in the clerical field will still be for replacement purposes.

Demand of secretaries will rise mainly as organizations that require large secretarial staffs expand. New government agencies, particularly at the state and local level, insurance companies offering new forms of protection, and banks providing financial counseling for an increasingly affluent population are just a few organizations that will need well trained secretaries in the years ahead. Jobseekers who are familiar with a wide range of office equipment and procedures are likely to have better prospects than other workers.

Employment of stenographers is expected to continue the decline of recent years. This is specifically due to the increased use of dictation machines.

The number of typists is expected to grow about as fast as the growth in the economy, particularly in those industries that generate most quantities of written records and correspondence.

Jobs for bookkeepers are still numerous even though employment is expected to grow slowly over the next few years. The occupation is still large, but the turnover is high. Most openings will occur for replacement reasons. Future employment growth in this occupation is bound to be slowed down by the increasing use of various types of bookkeeping machines (electronic computers) that process data more accurately, rapidly, and economically than workers doing it by hand. The best opportunities for employment of bookkeepers will be in wholesale and retail trade, insurance companies, banks, hospitals, schools and smaller factories.

Persons with any of these four clerical skills; secretarial, typing, stenographic, or bookkeeping should also find extensive opportunities for temporary or part-time work as employers increasingly turn to these workers during peak business periods.

Printing Craft Workers

Of the printing craft, compositors and lithographers are the most skilled and in greatest demand by firms in this area.

Compositors

(D.O.T. 650.582, 654.782, and
973.381)

Nature of Work*

In a small shop, one person may do all the work needed to complete a printing job. In large shops however, the work is divided among specialists. Editors select the material to be printed, while composing room workers prepare preliminary printing plates for press room workers who do the actual printing. Compositors, the most numerous of the composing room occupations, are vital to insuring that the job is completed accurately and on time.

After deciding what is to be printed and how it should look, editors send the material or "copy" along with a list of specifications to the composing room. There, a composing room supervisor reviews the editor's specifications and marks the manuscript with instructions about the style and size of type, column width, and size of pictures or illustrations. The copy - the term given to the material to be printed - then is given to a compositor who specializes in typesetting.

Hand Compositors (D.O.T. 973.381) make up the oldest composing room occupation. Today, hand typesetting only is used for small jobs in which the setting of type by machine is impractical. Hand typesetters read from the copy and set each line of type, letter by letter, on a "compositing stick," a device that holds type in place. They select and place where words will be divided and a hyphen placed if the word doesn't fit on a line (hyphensation), as well as adjust the spacing of the type with pieces of metal so that in the line of type will be the width of the column. As each "stick" is filled, they slide the completed lines into a shallow metal tray called "galley".

Linotype and monotype machine operators are craft workers who operate semiautomatic machines that set type much more rapidly that hand methods.

Linotype Machine Operators (D.O.T. 650.582) read from copy clipped to the machine and operate a keyboard to select letters and other characters. As they press the keys, metal molds of the letters are assembled into lines of words. After completing a line, operators touch a lever and the machine automatically fills the molds with lead, forming a line of type into a solid metal strip called a "slug". The slugs are assembled into the type frames from which printing plates are made.

Monotype Keyboard Operators (D.O.T. 650.582) also operate a keyboard machine. However, instead of selecting molds, the monotype machine produces a perforated paper tape.

Monotype Keyboard Operators or Monotype Caster Operators (D.O.T. 650.782) feed the tape into a machine that reads the tape and automatically select metal molds for each letter. The machine then forces molten metal into each mold to form the type.

While machines make their tasks easier, monotype and linotype machine operators must hyphenate and adjust type spacing to fit the width of columns. In small plants, operators also may maintain and repair typesetting machine.

Some typesetting will continue to be done by hand or with monotype and linotype machines. However, more and more firms are using phototypesetting machines, which can set type much more rapidly than linotype or monotype machines. With this equipment, a photographic process replaces the casting of type and the final product is a photographic film of the type rather than a metal slug.

In a common type of phototypesetting, a phototypesetter (D.O.T. 650.582) types in the text without regard to column width or hyphenation and produces a magnetic or perforated paper tape. The operator then feeds the tape containing the text into a computer that is programmed to do hyphenation and create columns of text. The computer creates a second tape - containing the text as it will appear when printed - that phototypesetters insert into a photo composition machine. This machine displays the individual characters on the tape and photographs them. The phototypesetter then develops films of the material to be printed.

* Source: Occupational Outlook Handbook
1978-1979 Edition

Working conditions for compositors vary from plant to plant. Some heat and noise are made by typesetting machines. In general, the new plants are well-lighted and clean, and many are air conditioned. Hand compositors have to stand for long periods and do heavy lifting. However, people with some types of physical handicaps have been able to work in the trade.

Lithographers

Nature of the Work

Lithography, also called offset printing, is one of the most rapidly growing methods of printing. It is a process of photographing the matter to be printed, making a printing plate from the photograph, and pressing the inked plate against a rubber plate which in turn presses it onto the paper.

Lithographers are responsible for a variety of printing activities ranging from photographing copy and pictures to making the final printing plates. Most lithographers are divided into specialized occupations such as camera operators, artists, strippers, and platemakers.

Camera Operators (D.O.T. 972.382) start the process of making a lithographic plate by photographing and developing negatives of the material to be printed. They generally are classified as line camera operators, halftone operators, or color separation photographers. Negatives may need retouching to lighten or darken certain parts.

Lithographic Artists (D.O.T. 972.281) make these corrections by sharpening or reshaping images on the negatives. They do the work by hand, using chemicals, dyes, and special tools. Like camera operators, they are assigned to only one phase of the work, and may have job titles such as dot etchers, retouchers, or letterers.

Strippers (D.O.T. 971.281) arrange and paste the negatives onto layout sheets, which are used by platemakers to make press plates. Platemakers (D.O.T. 972.781) cover the surface of flat pieces of metal with a coating of photosensitive chemicals, or may use plates with the coating already applied. They then put the layout sheet on top of the plate and expose both to bright lights. As the final step, platemakers treat the plate with chemicals to bring out the images of the material to be printed. When a large number of plates or a multiple number of images are needed, operators use a photocomposition machine.

Lithographers workers are on their feet much of the time, but the work is not strenuous. They sometimes are under pressure to meet publication deadlines.

Supply and Demand of Printing Craft Workers

In The

Springfield-Chicopee-Holyoke Labor Market Area

October 1979

Since local vocational schools and skill centers are aware of the apprenticeship and on-the-job training requirements necessary to become a compositor or a lithographer, programs are geared to give students a basic foundation in the intricacies of the graphics industry including:

1. the various methods of printing, composition, and finishing,
2. a knowledge of terminology, and
3. preparation of various types of negatives.

(see Appendix for training program).

A survey of the local vocational schools and skill centers recently showed them training some 95 students in the graphic arts (1979-1980 session), up about 18 percent over the previous year. Eighty-five percent are expected to remain in the area and pursue this trade.

The number of compositors or lithographers applying for unemployment insurance in recent month has been unusually small. Those registering with the Division of Employment Security have had very little trouble in obtaining work.

A survey of several printing firms in the area revealed the most frequent source of new hiring to be internal recruitment, promotion, referrals from current employees, or rehiring. Large plants are usually unionized in which case the unions often make referrals. If necessary, a firm will advertise in the local newspaper or trade journal. Some firms work closely with the Division of Employment Security or trade school. CETA sponsored skill centers have been most helpful.

Those employed in this occupation usually commute to work from a distance of five or more miles from the plant but within the labor market area.

There are no strict educational requirements in the printing field; however, a high school diploma is preferred by most firms interviewed. Some preference is given to trade school graduates with training in graphic arts.

Individuals who want to be skilled compositors generally learn their skills through apprenticeship programs. Apprenticeship usually consists of a six year program of progressively advanced training, supplemented by classroom instruction. This period can be shortened by as much as 2 to 2½ years for those who have had previous experience or schooling or prove to have the ability to learn the trade more rapidly. More and more trainees are bypassing the traditional apprenticeship approach and learning to become compositors through on-the-job experience. A four to five year apprenticeship program is usually required in order to become a lithographic craft worker.

Minimum starting wages vary from $3.50 an hour to $6.50, but average $4.11. At the end of a year the average goes up to $6.32. The average maximum wage for printers is $7.93 with the highly skilled earning as much as $8.00 an hour.

The printing industry is highly susceptible to changes in the economic climate, following the ups and downs of the business cycle fairly closely. However, employment during the first and second quarter of 1979 is running at a record high of 6,300 workers and at least for the time being does not appear to be affected by the current material recession. Nevertheless, employees surveyed recently, when asked to make a prediction as to hiring (compositors and lithographers in particular) over the next six to twelve months, hesitate on new hiring but state that they expect to do some hiring for replacement purposes only.

Automobile Mechanics
(D.O.T. 620.131 through 381.782,
and 885; 721.281 and 825.281)

Nature of the Work*

Anyone whose car has broken down knows how important the automobile mechanic's job is. The ability to make a quick and accurate diagnosis is one of the mechanic's most valuable skills. It requires good reasoning ability as well as a thorough knowledge of automobiles. In fact, many mechanics consider diagnosing "hard to find" troubles one of their most challenging and satisfying duties.

When mechanical or electrical troubles occur, mechanics first get a description of the symptoms from the owner or, if they work in a dealership, the service advisor who wrote the repair order. If the cause of the trouble is hard to find, the mechanic may test drive the car or use testing equipment, such as motor analyzers, spark plug testers, or compression gauges, to locate the problem. Once the cause of the problem is found, mechanics make adjustments or repairs. If a part cannot be fixed, they replace it.

Most automobile mechanics perform a variety of repairs: others specialize. For example, automatic transmission specialists work on gear trains, couplings, hydraulic pumps, and other parts of automatic transmissions. Because of these complex mechanisms, their repair requires considerable experience and training, including a knowledge of hydraulics. Tune-up mechanics adjust the ignition timing and valves, and adjust or replace spark plugs, distributor points and other parts to ensure efficient engine performance. They often use scientific test equipment to locate malfunctions in fuel and ignition systems.

Automobile Air-conditioning Specialists install air-conditioners and service components such as compressors and condensers. *Front-end mechanics* align and balance wheels and repair steering mechanisms and suspension systems. They frequently use special alignment equipment and wheel-balancing machines. *Brake mechanics* adjust brakes, replace brake linings, repair hydraulic cylinders, and make other repairs on brake systems. Some mechanics specialize in both brake and front-end work.

Automobile-radiator mechanics clean radiators with caustic solutions, locate and solder leaks, and install new radiator cores. They also may repair heaters and air contioners, and solder leaks in gasoline tanks. *Automobile-glass mechanics* replace broken windshield and window glass and repair window operating mechanisms. They install preformed glass to replace curved windows, and they use window patterns and glass-cutting tools to cut replacement glass from flat sheets. In some cases they may repair minor damage, such as pits rather than replace the window.

To prevent breakdowns, most car owners have their cars checked regularly and parts adjusted, repaired, or replaced before they go bad. This responsibility of the mechanic is vital to safe and trouble-free driving. When doing preventive maintenance, mechanics may follow a checklist to be sure they examine all important parts. The list may include distributor points, spark plugs, carburetor, wheel balance and other potentially troublesome items.

*Source: Occupational Outlook Handbook
1978-1979 Edition

Supply and Demand of Automobile Mechanics

In The

Springfield-Chicopee-Holyoke Labor Market Area

Vocational schools and skills centers are aware of the fact that automobile mechanics is becoming a field of the specialist. This is the direct result of the pressure on the auto industry to produce cars with better mileage performance and better fuel exhaust systems. A few auto service stations occassionaly have all-around mechanics but the large dealers and repair shops usually are looking for specialists.

Local trade schools trained 124 students in auto mechanics in the class of 1979. They expect to raise their number to 147 in the 1980 class. A follow-up of the 1979 class showed that about 80 percent remained in the area and 75 percent worked at the trade.

The course consists of the following:

1. An understanding of basic electrical theory and use of electrical testing equipment.

2. An understanding of the basic functions of major components and systems of the automobile.

3. A knowledge of shop practices such as measuring, disassembling, metal work or machining, installing of new posts, reassembly, and adjustments. (see Appendix for complete program).

Over the past year a considerable number of people registered at the Massachusetts Division of Employment Security as auto mechanics. Those with specialized training had very little trouble getting work.

Firms use various sources for recruitment of auto mechanics with preference given to internal recruitment, followed by newspaper advertisement, local trade schools (CETA Skill Centers in particular) and the Division of Employment Security.

Those employed in this occupation usually commute to work from a distance of five or more miles from the plant but within the labor market area.

Even though the firms surveyed did not put any minimal educational requirements on new hires, they revealed that the typical educational attainment of new hires was 12 years of schooling. Where electronics is becoming an integral part of the automobile one can expect a 12 year education becoming a must before too long.

Most firms surveyed expected a minimal experience of between one and four years, but some companies are still willing to hire through the vocational training school or skilled center and supply in-house training.

Minimum starting wages vary from $3.00 an hour to $3.50, but average $3.25. At the end of one year the average goes up to $5.00. The average maximum wage for the occupation is $6.90 with the highly skilled earning as high as $11.25 an hour.

In the five companies surveyed employment rose by 8.6 percent between 1977 and 1979. These firms expect to hire just eight auto mechanics over the next year due solely to anticipated replacement needs.

Automobile Body Repairers
(D.O.T. 807.381)

Nature of Work*

Every day thousands of motor vehicles are damaged in traffic accidents. Although some are wrecked, most can be made to look and drive like new. Automobile body repairers are the workers who straighten bent frames, remove dents, and replace crumpled parts that are beyond repair. Usually, they can fix all types of vehicles, but most repairers work mainly on cars and small trucks. A few specialize in working on large trucks, buses, or tractor trailers.

When a damaged vehicle is brought into the shop, body repairers generally receive instructions from their supervisors, who have determined which parts are to be restored or replaced and how much time the job should take.

Automobile body repairers use special machines to align damaged frames and body sections. They chain or clamp the semi-portable alignment machine to the damaged metal and apply hydraulic pressure to straighten it.

Body repairers remove badly damaged sections of body panels with a pneumatic metalcutting gun or acetylene torch, and weld in new sections to replace them. Sometimes, dented sections can be repaired rather than replaced; the repairers push dents out with a hydraulic jack or hand prying bar, or knock them out with a handtool or pneumatic hammer. Small dents and creases can be smoothed out by holding a small anvil against one side of the damaged area while hammering the opposite side. Very small pits and dimples are removed with pick hammers and punches.

Some small dents cannot be worked out of the metal. Body repairers fix these dents by first filling them with plastic or solder. Then, when the filler hardens, they file or grind it to its original shape and sand it smooth for painting. In most shops, automobile painters do the painting. Some smaller shops employ workers who do both body repairing and painting,

Body repair work has variety - each damaged vehicle presents a different problem. Therefore, in addition to having a broad knowledge of automobile construction and repair techniques, repairers must develop appropriate methods for each job. Most of these skilled people find their work challenging and take pride in being able to restore automobiles.

Body repairers usually work by themselves with only general directions from supervisors. In some shops, they may be assisted by helpers. In large shops, body repairers may specialize in one type of repair, such as straightening bent frames or repairing doors or fenders.

Working Conditions*

Automobile body shops are noisy because of the hammering against metal and the noise from power tools. Most shops are well-ventilated, but they are usually dusty and have the odor of paint. Body repairers often work in awkward or cramped positions, and much of the work is strenuous and dirty. Hazards include cuts from sharp metal edges, burns from torches or heated metals, and injuries from power tools.

* Source: Occupational Outlook Handbook
1978-1979 Edition

Supply and Demand of Automobile Body Repairers

In The

Springfield-Chicopee-Holyoke Labor Market Area

October 1979

Auto body repairers usually learn their trades on the job. They start as helpers and pick up skills from experienced workers. They begin by assisting trained workers in such tasks as removing damaged parts and installing repaired products. Helpers gradually learn to remove small dents and make other minor repairs, and progress to more difficult tasks such as straightening frames. Generally, three to four years of on-the-job training is necessary to become skilled in all aspects of body work.

Courses in automobile body repairs are offered by local vocational schools and skills centers and provide helper training and experience. Some 72 students were trained at local schools in 1979. Enrollment is expected to go up by eight percent in 1980. A follow-up of the recent class show more than 95 percent remain in the area completing the course and 90 percent continue in the trade.

Local firms surveyed feel that the vocational schools and skill centers only provide rudimentary knowledge and do not teach the trade in enough depth and do not keep up with the state of art.

Firms use various sources for requirements of auto body repairers with preference given to internal recruitment (usually word of mouth) followed by newspaper advertising, public employment agencies (DES), and local skilled centers.

Those employed in this occupation usually commute to work from a distance of five or more miles from the plant but within the labor market area.

In Firms recently surveyed the typical educational attainment of new hires was 12 years. The typical number of year's experience of new hires was between one and five years.

Minimum starting wages vary from $3.00 an hour to $4.00, but average $3.45. At the end of one year the average goes up to $4.38. The average maximum wage for the occupation is $7.36 with the highly skilled earning as much as $10.00 an hour.

But for replacement purposes, firms plan to hire very few workers in this trade over the next six to twelve months.

Carpenters

(D.O.T. 860.281 through .781)

Nature of Work

Carpenters, the largest group of building trades workers, are employed in almost every type of construction activity. Their work is commonly divided into two broad categories - "rough" carpentry and "finish" carpentry. Skilled carpenters are able to do both types of work.

Carpenters build according to instructions obtained from supervisors, blueprints, or both. In rough work, they erect the wood framework in buildings including subfloors, partions, floor joists, and rafters. In addition, they install heavy timbers used in the building of docks, railroad trestles, and similar heavy installations. Rough carpentry also includes the building of forms to enclose concrete until it is hardened, the making of chutes for pouring concrete, and the erecting of scaffolds and temporary buildings on the construction site. In all cases, carpenters must use materials and building techniques that conform to local building codes.

In finish work, which begins after the rough work is complete, carpenters install molding, wood paneling, cabinets, window sash, door frames, doors, and hardware and complete other finish work. Finish carpentry also includes building stairs and laying floors. Carpenters who do finish work must consider the appearance as well as the structural accuracy of the work. For example, they use a mitre-box saw to cut moldings so joints will not be noticed, and hide nails or screws with putty for a neat appearance.

As part of their job, carpenters also saw, fit, and assemble plywood, wallboard, and other materials. They use nails, bolts, wood screws, or glue to fasten materials. They may also install linoleum, asphalt tile, and similar soft floor coverings. Carpenters use handtools such as hammers, saws, chisels, planes, and power tools such as portable power saws, drills, and rivet guns.

Because of the wide scope of work in the trade, carpenters tend to concentrate on only one type of work. For, example, some carpenters specialize in erecting new houses; others specialize in laying hardwood floors. Specialization is more common in large metropolitan areas; in smaller communities and in rural areas, carpenters ordinarily do all types of carpentry and also may install glass put in insulation, and paint.

Supply and Demand for Carpenters

In The

Springfield-Chicopee-Holyoke Labor Market Area
October 1979

Apprehensive of the recession and slow recovery in the construction industry, vocational schools and skills centers have trained only a small number in the carpentry trade. In 1979, 38 completed training in this occupation, most of whom remained in the area but only half in the trade. In the class of 1980 enrollment is expected to reach 52.

The last boom in construction ended in 1974 and never fully recovered. Employment dropped from a high of 8,200 in1973, down to 5,100 by 1976, but only recuperated to an average of 5,500 during the first two quarters of 1979.

An apprenticeship program is considered the best way to learn carpentry. However, many workers in the trade have acquired their skills by working as carpenter's helpers.

Apprenticeship applicants generally must be at least 17 years old. A high school or vocational school education is desirable, as are courses in carpentry, mechanical drawing, and general mathematics.

The apprenticeship program is usually sponsored by a local joint committee of contractors and unions, and consists of four years of on-the-job training, plus a minimum of 144 hours of related classroom instruction each year.

To qualify for an apprenticeship's program an applicant must pass an entrance examination which is administered by the local union in this labor market area. An apprentice receives wages of 60 percent of union scale. That scale was $12.15 an hour as of June 16, 1979 in this area and will be $12.45 as of December 16, 1979. That will amount to $7.47 an hour for those in apprenticeship training in December.

Some recovery in construction has been visible in recent months due to a spurt in construction of commercial properties and federally funded projects which should increase demand for carpenters in the near future.

X. Employment Training Programs

A. The Work Incentive Program (WIN)

This program is administered by the Division of Employment Security with referrals by the Welfare Department. The program concentrates on welfare recipients covered by Aid to Families with Dependent Children (AFDC). The WIN program provides for the rehabilitation of the welfare clients, rather than a commitment to long term maintenance. Its goal is to move men, women and out-of-school youth, age 16 or older from the welfare rolls into meaningful, permanent, employment. The program is represented by two teams in Springfield and one in both Holyoke and Northampton. The accumulative record of these four teams is shown in the following table:

Table XI WIN Team Data

Springfield-Holyoke-Northampton

	10/1/76 to 3/13/77	10/1/77 to 3/31/78	10/1/78 to 3/31/79	10/1/79 to 3/31/80
Registrants	13,174*	15,119*	15,380*	12,352
New Registrants	2,978	3,592	1,955	2,355
Appraisals	2,577	2,018	1,604	2,194
Institutional Training	107	76	72	74
Work Experience	37	63	20	17
Suspense	86	226	154	143
On-The-Job-Training	34	67	45	58
Entered Unsubsidized Employment Expected to Last 30 Days or More	474	539	802	810

* Includes carry-over from prior fiscal year

NOTE: A change in the definition of "Institutional Training" has resulted in a lesser number reported in that component.

B. CETA

BACKGROUND

The Comprehensive Employment and Training Act, passed by Congress in 1973, and amended in 1978, created a system of job training and employment opportunities for people who compete at a disadvantage in the local labor market. This system is different in many ways from earlier Federal programs that also sought to help unemployed and underemployed persons, particularly the disadvantaged, find suitable employment through training and supportive services.

One of the major purposes of the Act was to create a flexible and decentralized program design in which principal responsibility for the planning and operation of comprehensive manpower programs under CETA are moved from Federal control to that of State and local officials designated as Prime Sponsors. These may be the elected officials of any unit of general government which has a population of 100,000 or more persons, or combinations of such units when at least one of them meets the population criteria. The elected public officials of Hampden County's 23 cities and towns have formed a partnership called the Hampden County Manpower Consortium as a CETA Prime Sponsor.

In line with the CETA intent to consolidate and coordinate manpower program funding, a system of block grants to Prime Sponsors replaces the previous network of direct Federal contracts with many different sponsoring organizations, none of which had any effective management responsibility for the area as a whole. The effect has been to minimize duplication and overlap, and to strive for optimum coordination of manpower resources within the community.

Prime Sponsors are charged with determining which training and employment activities are to be made available to which target groups within the framework of local needs, changing labor market conditions, and the requirements of the Act. They are also required to establish policies and procedures for administering the programs and for monitoring and evaluating performance.

Finally - the CETA legislation is designed primarily to meet individual needs. For this purpose, it consists of several programs, designated by the title of the Act in which each one is authorized.

Title II-B provides funds to Prime Sponsors to operate comprehensive employment and training programs and offer supportive services to the economically disadvantaged. Allowable activities and services under Title II-B include classroom training, work experience, on-the-job training and other supportive services to participants. This Prime Sponsor offers II-B eligible participants a wide array of employment and training services in all but the on-the-job training category. In order to augment HCMC's youth programs operated under Title IV, 37% of HCM's II-B service level has been allocated for service to disadvantaged youth.

Title II-C authorizes funds for upgrading and retraining programs which offer additional opportunities to those groups, particularly minorities and women, who are frequently locked into low paying, dead end jobs. No II-C program offerings are currently operated by HCMC.

Title II-D is designed to provide transitional employment opportunities to the economically disadvantaged. This program provides public service employment for unemployed economically disadvantaged persons and provides related training and services to participants to enable them to move into unsubsidized employment. Title II-D services are targeted for the structurally unemployed who lack the necessary skills and/or employment experiences which enable them to successfully compete in the labor market. The Title II-D program, as operated by this Prime Sponsor, combines public service employment with other employment and training activities, including employability, counseling and job search assistance.

Title III authorizes the Secretary to provide funds to operate special national programs and activities. Title III funds establish experimental, developmental, demonstration and pilot programs, through grants and contracts to Prime Sponsors, public agencies and private institutions. Title III funds may be utilized for: improving techniques and demonstrating the effectiveness of specialized methods in meeting employment and training problems, conducting research and evaluation projects, and for establishing programs which assure the increase labor force participation of those groups which experience the most severe barriers to employment or who have been discouraged from seeking employment.

Title IV establishes programs specifically for youth. Part A of Title IV authorizes youth programs under the Youth Employment Demonstration Projects Act. YEDPA amended the Comprehensive Employment and Training Act in 1977 by adding several new programs for youth. These programs are designed to test the effectiveness of different approaches in solving the employment problems of youth. The Hampden County Manpower Consortium receives funds under two of the three subparts authorized by YEDPA. They are: the Youth Community Conservation and Improvement Projects (YCCIP) and the Youth Employment and Training Program (YETP). The Prime Sponsor's YCCIP program provides out-of-school youth with employment in work experience projects of benefit to the community. Locally, the YETP program services both in-school and out-of-school youth with a wide array of employment and training services which include: skills training, work experience, vocational exploration, world of work activities, job development, career counseling, and a variety of transitional services to aid youth in making the transition from school to work. Title IV-A also provides for the Youth Incentive Entitlement Pilot Projects (YIEPP), however, HCMC receives no funding under this Subpart.

Title IV, Part B establishes a Job Corps and provides both residential and nonresidential centers in which enrollees participate in intensive programs of education, vocational training, work experience, counseling and other activities. The Hampden County Manpower Consortium does not contract with the Department of Labor for the provision of Job Corp services, but rather has established cooperative linkages with the Westover Job Corps center in order to effectively serve the needs of Hampden County youth who may be in need of a residential training environment.

Title IV, Part C - Summer Youth Employment Program (SYEP) provides funds to Prime Sponsors to provide useful work, basic education and institutional or on-the-job training for eligible youth during the summer months. The program is designed to assist youth in developing their maximum occupational potential, to obtain unsubsidized employment as well as to gain access to existing employment and training programs. During this fiscal year, HCMC will serve several thousand economically disadvantaged youth under its Summer Youth Employment Program.

Title VI was created to provide a countercyclical public service employment program. Title VI provides for temporary employment during periods of high unemployment. Of the funds allocated to Prime Sponsors, at least 50% are to be utilized to provide public service jobs in projects. Projects are designed to provide a new public or human service or expand existing public or human services as opposed to merely sustain or continue existing services. Of the amount of funds allocated for projects, at least one third shall be planned for public service projects which are developed and operated by non-profit organizations. The remainder of these project funds may be utilized by municipalities for public service employment projects.

In addition to providing public service employment in projects, Prime Sponsors are to allocate funds for entry level public service jobs which are not project oriented. Supportive services such as counseling, job search, and placement services are also afforded Title VI participants.

Title VII was created under the CETA reauthorization to increase the involvement of the business community, including small business and minority business enterprises in CETA employment and training activities. Prime Sponsors such as HCMC who receive Title VII funding have established Private Industry Councils comprised of representatives from industry and the business community, organized labor, community based organizations and educational institutions. Consistent with local labor conditions, the interest of the private sector, and the needs of the community, the PIC serves as an intermediary in assisting CETA in becoming more responsive to the business community. Locally, the PIC, in conjunction with the Hampden County Manpower Consortium, is developing criteria for the selection of occupations for training and is involved in developing standards and specifications for training in particular occupations.

The Hampden County Manpower Consortium in Springfield serves the Hampden County Area. In Hampden County, the initial thrust of the CETA program was to address the problem of soaring minority joblessness. However, the 1975 economic recession aggravated the unemployment condition, and CETA was expanded to include semiskilled workers. Today, the emphasis is on economic development in terms of addressing industry's skill shortages.

Under Title II-B, the consortium appropriates money to skill centers in Springfield and Holyoke, which provide prevocational services and occupational training. This training consists of:

1. Clerical
2. Machine Occupations
3. Food Service
4. Graphic Cluster
5. Electrical Test Technician
6. Electronic Bench Assembly
7. Auto Mechanics
8. Drafting

Not only are jobs available in these areas, but they can be filled by economically disadvantaged workers, especially upon completion of training in:

1. Prevocational Training
2. Skills Conservation
3. Classroom Training
4. Work Experience
5. Job Search

Title II-B also funds work experience programs.

Title II-D provides for jobs in state and municipal offices and nonprofit agencies for the disadvantaged, unemployed and underemployed. Eligibility certifications and application processing is under the direction of the Massachusetts Division of Employment Security. Also under Title II-D, part-time and full-time training courses are offered as demanded by the local labor market.

Table XII is a summary of persons placed in CETA programs and those placed in unsubsidized employment upon completion of training by the Hampden County Manpower Consortium in 1979.

Table XII

Title	Total Terminations	Placed in Jobs (Unsubsidized) Employment)
11-B	1,203	665
11-D	598	259
YETP	505	169
YCCIP	85	15
VI	623	139

Veterans who served during the Vietnam-era (8/5/64-5/7/75) and served 180 + days on active duty or were discharged for service connected disability are immediately eligible for both old and new Title VI provided they have not had full-time permanent employment between their date of discharge and application for title VI.

Table XIII Characteristics of Persons to be Served by CETA Programs in FY 80

Characteristics	Title II-B	II-D	VI	VII	Total
Male	695	609	321	129	1,754
Female	642	390	100	43	1,175
19 & Under	267	84	33	46	430
20-21	227	106	51	19	403
22-24	714	599	310	94	1,717
45-54	79	121	47	8	255
55 & Over	50	89	40	5	184
White (Not Hispanic)	706	731	361	91	1,889
Black (Not Hispanic)	298	170	75	38	581
Hispanic	316	90	44	41	491

C. Targeted Jobs Tax Credit Program

The Revenue Act of 1978 (PL 95-600, approved Nov. 6, 1978) established the Targeted Jobs Tax Credit (TJTC) replacing the New Jobs Tax Credit and related Vocational Rehabilitation Tax Credit which expired December 31, 1978, and modifying the WIN and Welfare Tax Credits which continue in force.

The TJTC is an elective tax credit that applies to wage costs incurred by taxpaying employers between January 1, 1979, and December 31, 1980, for certified employees hired after September 26, 1978. The credit is equal to 50 percent of first year wages up to $6,000 and 25 percent of second year wages up to $6,000 for each eligible employee in the following groups:

1. Recipients of Supplemental Security Income (SSI) payments;
2. Handicapped individuals referred from vocational rehabilitation;
3. Youth, 18 through 24, in economically disadvantaged families i. e., with income the preceding 6 months less than 70 percent of the Bureau of Labor Statistics lower living standard;
4. Vietnam-era veterans under 35 who are economically disadvantaged;
5. Recipients of general assistance (state or locally financed welfare) for 30 or more days;
6. Youth, 16 through 18, participating in an approved cooperative education program; and
7. Ex-convicts (convicted of a felony) who are economically disadvantaged and hired within 5 years of release from prison or date of conviction, whichever is later.

Other major features of the new TJTC are:

1. To prevent targeted employees from displacing nontargeted employees, the Act provides that qualified first year wages during a taxable year cannot exceed 30 percent of aggregate FUTA (Federal Unemployment Tax Act) wages for all employees during the calendar year ending in that taxable year.
2. The employer's business expense deduction for wages is reduced by the amount of the credit, as under previous employment tax credits.

3. The Credit is limited to 90 percent of tax liability after this liability is reduced by other applicable credits, such as those taken under the Investment Tax Credit. An unused portion of the credit may be carried back three years or carried forward seven years.

4. There are special transitional rules for taxpayers using a 1978-79 fiscal year. Such taxpayers can obtain new Form 5884-FY, Jobs Credit, fron an Internal Revenue Service (IRS) office.

5. No credit may be claimed for wages of employees for whom employers receive federally funded on-the-job training payments, or claim the WIN or Welfare Tax Credit during that taxable year.

SOURCE: U. S. Department of Labor
Employment and Training Administration
Office of Information

MASSACHUSETTS

Table XIV Targeted Jobs Tax Credit

October 1, 1979 - March 31, 1980

	CHARACTERISTICS A	ELIGIBLE DETERMINATIONS B	TAX CREDITS AUTHORIZED C
TOTAL		7,260	2,364
SEX	Male	5,015	1,594
	Female	2,245	770
AGE	16-18	771	232
	19-24	4,546	1,424
	25-34	1,365	505
	35 and Over	578	203
RACE/ETHNIC GROUP	White, not Hispanic	5,811	1,821
	Black, not Hispanic	740	188
	Hispanic	598	301
	American Indian/Alaskan Native	43	9
	Asian/Pacific Islander	68	45
VETERAN		924	287
WAGES	Under $2.90		37
	$2.90 - $3.99		1,633
	$4.00 - $4.99		466
	$5.00 - $5.99		115
	$6.00 and Over		113
OCCUPATIONAL CATEGORY	Professional, Technical, Managerial		104
	Clerical and Sales		201
	Service		276
	Farm. For., Fish.		12
	Processing		223
	Machine Trades		407
	Bench Work		526
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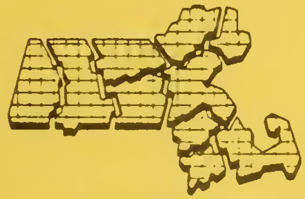

LABOR AREA RESEARCH PUBLICATION

Massachusetts Division of Employment Security

job market research

THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Charles F. Hurley Building
Government Center, Boston, MA. 02114

ANNUAL PLANNING INFORMATION REPORT
FISCAL YEAR 1982

SPRINGFIELD-CHICOPEE-HOLYOKE, MASSACHUSETTS LABOR MARKET AREA

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I. Highlights and Conclusions

The rate of unemployment in the Springfield-Chicopee-Holyoke Labor Market Area reached an average of 11.3 percent during the recession of 1975, a record high for the decade. Nearly every aspect of the local economy was adversely affected. However, improvement in this economy began in the last quarter of 1975 and continued, except for seasonal fluctuations, through 1978 when the unemployment rate averaged 4.8 percent.

The recent recession which began nationally in the second quarter of 1980 did affect the Springfield-Chicopee-Holyoke labor market area but not significantly until early 1981, when nonagricultural employment started to drop off. The unemployment rate which averaged 6.1 percent during the first half of 1981 could rise as much as a half a percentage point over the next 15 months, but still remain considerably below that of the nation which reported an average rate of unemployment of 7.6 percent for the first six months of 1981.

Progress in the local economy can be attributed to its excellent industrial base and the policy of promoting growth of industries by local public and private agencies working together. Development of industrial parks, shopping centers, and better roads are just a few examples of this combined effort. Over the past two years, this labor market area was further helped by a state agency, the Massachusetts Industrial Finance Agency (MIFA). MIFA is an independent public agency designed to stimulate increased employment by offering important financing incentives to companies in the Commonwealth. Numerous firms have been able to expand their facilities and equipment by this method.

There is also a definite movement of the high technology industry toward the western part of the state. Wang Laboratories is expected to establish a plant in Holyoke and Prime Computer in West Springfield within the next few years. Combined payrolls could mean several thousand jobs.

Reasons given by firms expanding in this area are usually good highways, easy access to the airport (national and international flight), a sizeable labor pool and an excellent Hampden County Regional Skills Center.

Note: Fiscal year in this report is based on the Federal Fiscal Year starting October 1.

II. Description of Area

A. Definition of Area : Cities and Towns: The Labor Market Area is comprised of five cities and twenty-eight towns. The five cities are Springfield, Chicopee, Holyoke, Westfield all located in Hampden County, and Northampton in Hampshire County. The twenty-eight towns are Agawam, Brimfield, East Longmeadow, Granville, Hampden, Longmeadow, Ludlow, Monson, Montgomery, Palmer, Russell, Southwick, Wales, West Springfield, and Wilbraham in Hampden County; Amherst, Belchertown, Chesterfield, Easthampton, Granby, Hadley, Hatfield, Pelham, Southhampton, South Hadley, Westhampton, and Williamsburg in Hampshire County; Warren in Worcester County.

Boundaries: Northwest: Chesterfield, Westhampton in Hampshire County. Southwest: Southampton, Montgomery, Russell, and Granville in Hampden County. Northeast: Pelham, Belchertown in Hampshire County. Southeast: Warren in Worcester County; Palmer, Brimfield and Wales in Hampden County. North: Amherst, Hadley, Hatfield, and Williamsburg in Hampshire County. South: Southwick, Agawam, Longmeadow, East Longmeadow, Hampden and Monson in Hampden County (all along the Connecticut Border).

1. Definition of CETA Prime Sponsors:

Hampden County Manpower Consortium: The CETA Agency for Hampden County.

Hampshire County Manpower Consortium: The CETA Agency for Hampshire County.

2. The Job Matching Service: The Springfield-Chicopee-Holyoke LMA is serviced by four Job Matching Service Centers. As a labor exchange, local job service offices match worker skills and interests with employer job openings. Among the functions involved in this process are:

Interviewing jobseekers and identifying their job skills, knowledge and interests.

Listing Job Openings received from employers.

Referring applicants who meet the hiring requirements of the jobs listed.

Counseling and testing jobseekers who are not easily placed to assist them in obtaining suitable employment.

In addition to labor exchange activities under the Wagner-Peyser Act of 1933, it is involved in the administration of 25 other laws, 17 Executive orders, and 16 agreements with various Federal agencies, requiring the performance of specific duties relating to specifically targeted applicant groups. Among these groups are Vietnam-era veterans, the handicapped, older workers, youth, minorities, recipients of AFDC and food stamps, and persons eligible for CETA activities.

Since the inception of CETA in 1973 with its many services for individuals with special barriers to employment, the basic role of the job service as a public labor exchange serving job-ready applicants and employers with job openings has been reemphasized. Today the role of job matching can be described as one of being devoted to increasing the quantity and quality of placement, improving job search management, developing new tools such as computerized job matching, and building better relationships with private sector employers.

Cities and Towns Served by the Local Offices in the Springfield-Chicopee-Holyoke LMA

Chicopee

Chicopee
Westover Air Force Base

Holyoke

Granby
Holyoke
South Hadley

Northampton

Amherst
Chesterfield
Cummington
Easthampton
Goshen
Hadley
Northampton
Pelham
Plainfield
Southampton
Westhampton
Williamsburg
Worthington

Springfield

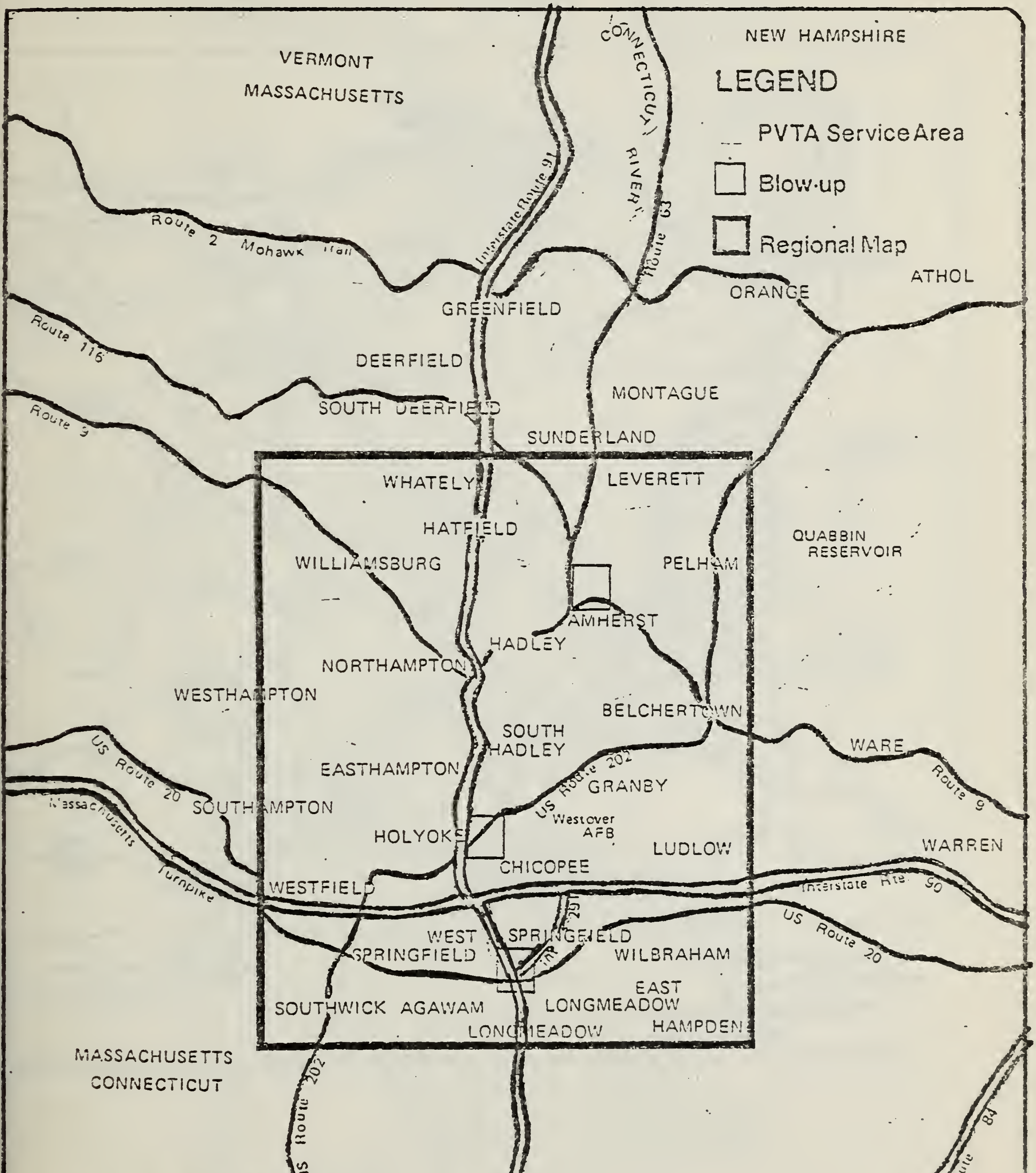
Agawam
Blandford
Chester
East Longmeadow
Granville
Hampden
Huntington
Longmeadow
Ludlow
Middlefield
Montgomery
Russell
Southwick
Springfield
Tolland
West Springfield
Westfield
Wilbraham

3. Geographical Description and Topography:

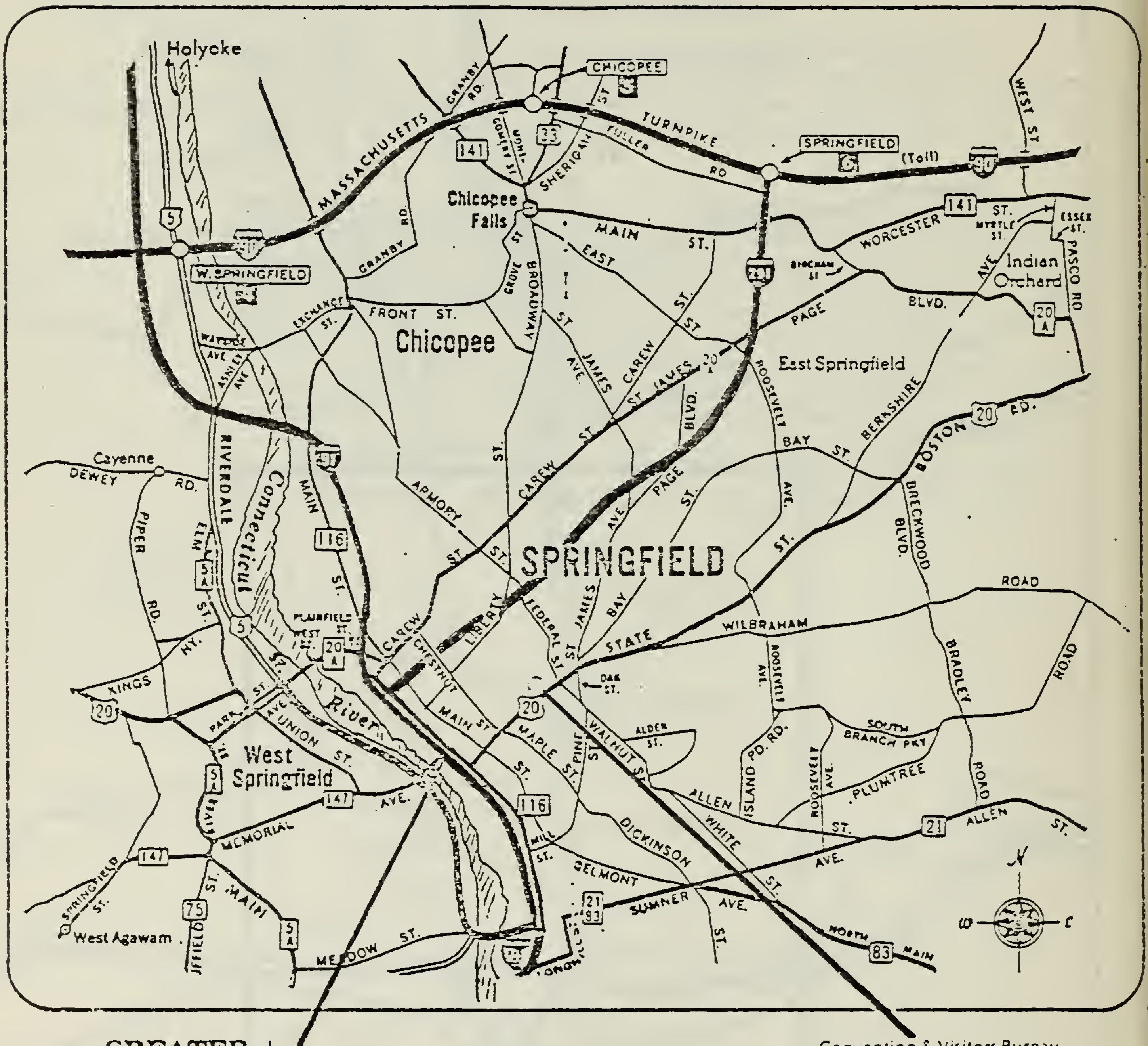
Land Area: The Springfield-Chicopee-Holyoke Labor Market Area based on the newly defined geographical boundaries has a total of 870.14 square miles of land area. The city of Westfield with a land area of 46.85 square miles is the largest among the five cities.

Other Geographical Features: The area has several mountain ranges of which the most famous are Mount Tom and the Berkshire Hills. The Labor Market Area has a very large river basin, known as the Lower Pioneer Valley enclosed on both sides by scenic mountains which constitutes an extremely important natural resource area of the state. The Connecticut River, the largest in New England, flows through the heart of the area from north to south, while two of the largest tributaries, the Chicopee and Westfield Rivers, flow through the eastern and western sections of the Labor Market Area. The city of Springfield has two surface reservoirs and Holyoke has an above ground reservoir. Chicopee is tied into the Quabbin Reservoir.

Map I


NEW HAMPSHIRE
VERMONT
MASSACHUSETTS
LEGEND
PVTA Service Area
Blow-up
Regional Map
CONNECTICUT RIVER
Interstate Route 91
Route 63
Route 2 Mohawk Trail
Route 116
Route 9
ATHOL
ORANGE
GREENFIELD
DEERFIELD
SOUTH DEERFIELD
MONTAGUE
SUNDERLAND
WHATELY
LEVERETT
HATFIELD
QUABBIN RESERVOIR
WILLIAMSBURG
PELHAM
AMHERST
HADLEY
NORTHAMPTON
WESTHAMPTON
BELCHERTOWN
SOUTH HADLEY
WARE
EASTHAMPTON
US Route 202
GRANBY
US Route 20
SOUTHAMPTON
Westover AFB
Massachusetts Turnpike
HOLYOKE
LUDLOW
WARREN
CHICOPEE
WESTFIELD
Interstate Rte 90
291
WEST SPRINGFIELD
SPRINGFIELD
WILBRAHAM
EAST LONGMEADOW
SOUTHWICK
AGAWAM
LONGMEADOW
HAMPDEN
MASSACHUSETTS
CONNECTICUT
US Route 202
ENFIELD
Interstate Route 84
REGIONAL KEY

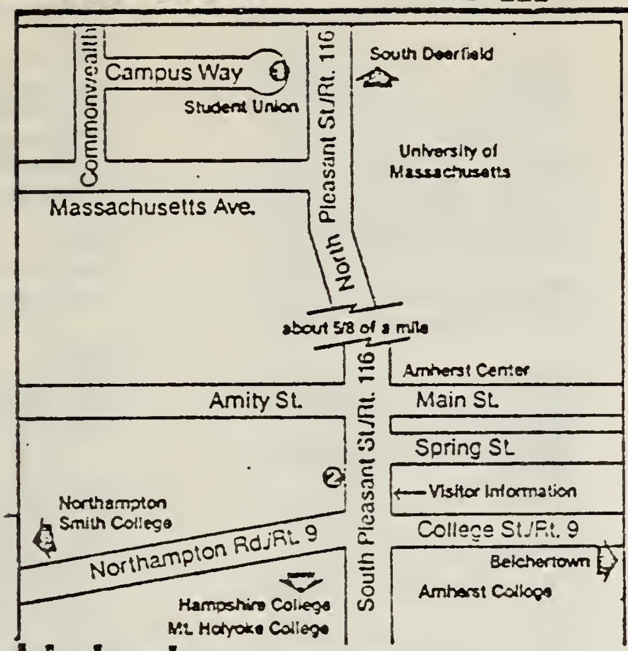
Map II



GREATER SPRINGFIELD CHAMBER OF COMMERCE BAYSTATE WEST PLAZA 1500 MAIN STREET – SUITE 600 SPRINGFIELD, MASSACHUSETTS 01115

(413) 734-5671

Convention & Visitors Bureau
284 State Street, Springfield, Mass. 01105
(413) 734-4959



①

Campus Way
Center Terminal
Peter Pan bus to Boston

Pioneer Valley Transit Authority Terminal

Five College bus terminal

②

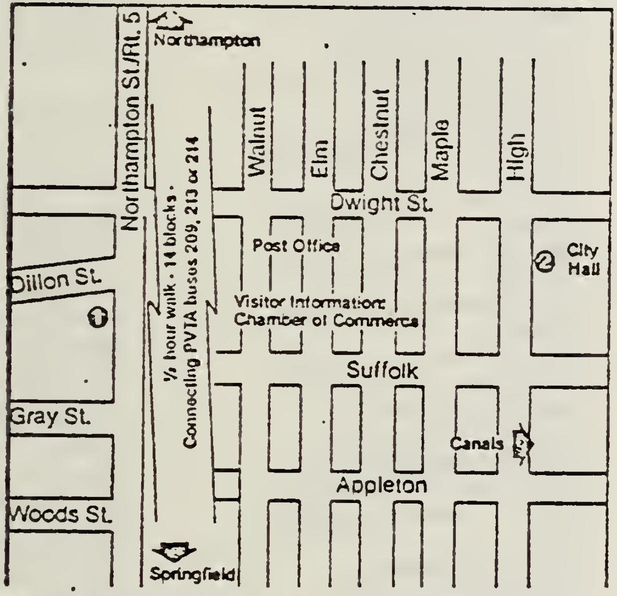
Trailways Terminal
79 South Pleasant St.
Trailways bus to New York City/Worcester Ayer/Lowell

Peter Pan bus to Boston/Springfield/ Hyannis/Woods Hole

Pioneer Valley Transit bus stop

Taxicab stand

Holyoke



①

Trailways Terminal
Trailways to Springfield/New Haven /New York City/ Fitchburg/Ayer/Lowell

Peter Pan to Springfield /Amherst/Boston/Cape Cod

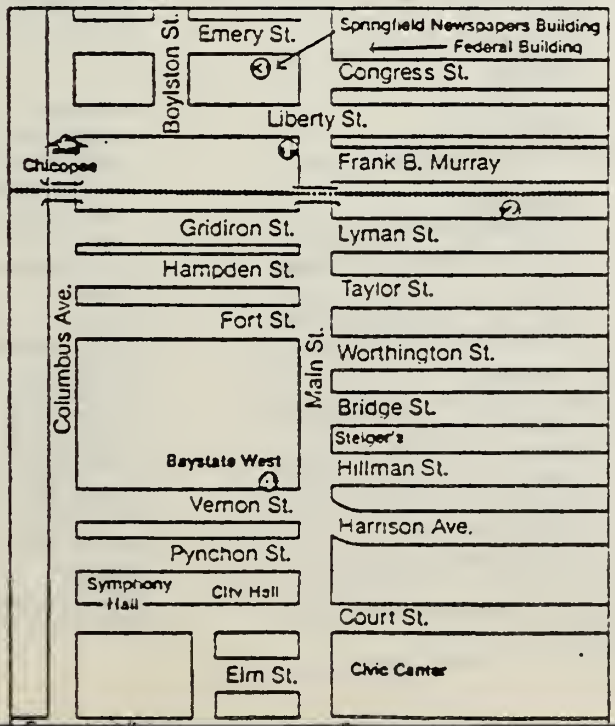
Vermont Transit to Greenfield/Brattleboro /White River Junction /St. Johnsbury

PVTA bus stop for buses 209, 213, or 214

②

City Hall
Pioneer Valley Transit Authority bus shelter (terminal)

Springfield



①

Bus Terminal
Peter Pan to Boston /Worcester/Bradley Airport/Cape Cod

Greyhound to New York City/Burlington, VT

Vermont Transit to Montpelier/Montreal

Bonanza bus to Lenox /Pittsfield/Albany /Providence

Blue Line to Willimantic, CT/Storrs, CT/New London, CT

PVTA buses 401,403, 404,406,217,101,102, 105,111

②

Amtrak railroad station
Trains to New York City/Montreal/Boston

③

Newspapers Building
PVTA buses 401,403, 404,406

Amherst
Peter Pan—From Deerfield, Springfield, Boston-Worcester, U.Mass./Boston.
Trailways—From New York City, Hartford, Haverhill.
Western Mass Bus—From Worcester, Northampton.
Greenfield - Montague RTA "GMA" Bus (Greenfield-Montague Ctr.-Amherst). Also listed as PVTA Route 801.
PVTA/U.Mass. Buses from U.Mass. Terminal: Bus 310 (Belchertown), 315 (Echo Hill), 320 (Belchertown Rd.), 325 (Orchard Valley), 330 (South Amherst), 340 (Orchard Hill), 350 (Campus Shuttle), 360 (North Amherst), 380 (Sunderland), 390 (South Deerfield).

Amherst-U.Mass.
Peter Pan 501 (Springfield-Holyoke-Easthampton-Amherst).
Peter Pan 503 (Springfield-Fairfield Mall-Westover-South Hadley).
PVTA/Western Mass. 703 (Northampton-North Amherst).

Agawam
PVTA/Peter Pan 505 (Springfield-Agawam-Bradley).
PVTA/Western Mass 704 (Springfield-Agawam).
PVTA/Springfield-Agawam 705 (Springfield-Riverside Park).

Belchertown
Peter Pan—from U.Mass./Amherst, Worcester, Boston/Trailways.
Western Mass Bus—from Worcester and Northampton.
PVTA/U.Mass. 310 (U.Mass.-Belchertown Ctr.).

Brimfield
Peter Pan—from Springfield, Worcester, and Boston/Trailways.

Chicopee
Greyhound—from Albany (N.Y.), Worcester, Boston.
PVTA—local services, as below.

Aldenville
PVTA/Holyoke 202 (Fairfield Mall *via* Chicopee Falls).
PVTA/Holyoke 219 (Holyoke-Fairfield Mall *via* Westover).

Chicopee Falls
PVTA/Springfield 101 (Springfield-Fairfield Mall/Sumner-Allen).
PVTA/Springfield 103 (Springfield-Chicopee Falls *via* Liberty, Wilbraham Rd.).
PVTA/Holyoke 219 (Holyoke-Fairfield Mall *via* Westover).
PVTA/Holyoke 202 (Fairfield Mall *via* Chicopee Falls).

Easthampton
PVTA/Holyoke 216 (Holyoke-Northampton/Easthampton).
PVTA/Western Mass 701 (Northampton-Easthampton).

East Longmeadow
PVTA/Longueil 402 (Springfield-Longmeadow-East Longmeadow).
PVTA/Longueil 404 (Springfield-East Longmeadow).

Hadley
Western Mass—from Worcester, Northampton.
PVTA/Peter Pan 501 (Springfield-Holyoke-East & Northampton-Amherst).

Holyoke
Peter Pan—from Deerfield and Springfield.
Trailways—from New York City and Haverhill.
Vermont Transit—from White River Jct. (Vt.), Springfield.
PVTA/Springfield Bus 111 (Springfield-Holyoke *via* Riverdale).
Peter Pan 501 (Springfield, Holyoke, East & Northampton, Amherst).
PVTA/Holyoke Buses, all connect from Holyoke Ctr.
Bus 201 (Chicopee Ctr.)
Bus 202 (Fairfield Mall *via* Chicopee Falls)
Bus 203 (Elmwood)
Bus 204 (Elmwood/Whiting Farms)
Bus 205 (Oakdale/Whiting Farms)
Bus 206 (Fairfield Mall *via* Fairview)
Bus 207 (Granby Road to East Street)
Bus 208 (Westfield *via* Hampton Ponds)
Bus 209 (Jarvis Ave.)
Bus 210 (Essex/Appleton)
Bus 211 (South Hadley Ctr.)
Bus 212 (South Hadley Falls)
Bus 213 (West Dwight/Hillside)
Bus 214 (Highlands)
Bus 215 (West Hampden)
Bus 216 (Northampton/Easthampton)
Bus 217 (Springfield *via* Riverdale)
Bus 219 (Fairfield Mall *via* Westover)
Bus 220 (Amherst)
Bus 221 (Springfield Express)

Longmeadow
PVTA/Longueil 402 (Springfield-East Longmeadow-Longmeadow).
PVTA/Longueil 406 (Springfield-Longmeadow-Enfield, Conn.).

Northampton
Peter Pan from U.Mass./Amherst, and Boston.
Trailways from New York City, Hartford (Conn.). and Haverhill.
Vermont Transit from Springfield and White River Jct. (Vt.).
Western Mass. from Worcester.
PVTA/Holyoke Bus 216 (Holyoke-Northampton/Easthampton).
Peter Pan Bus 501 (Springfield-Holyoke, Easthampton, Amherst).
PVTA/Western Mass. Bus 701 (Northampton-Easthampton).
PVTA/Western Mass. Bus 702 (Northampton-Williamsburg).
PVTA/Western Mass. Bus 703 (Northampton-North Amherst).

Palmer
Peter Pan from Springfield, Worcester, Boston/Trailways.

Pelham
Trailways from New York City, New Haven, Hartford, Springfield, Haverhill.

South Hadley
PVTA Bus/Holyoke 207 (Holyoke-Granby Rd. to East St.).
PVTA Bus/Holyoke 211 (Holyoke-South Hadley Ctr.).
PVTA Bus/Holyoke 212 (Holyoke-South Hadley Falls).
PVTA Bus/Holyoke 220 (Holyoke-Amherst).
PVTA Bus/Peter Pan 503 (Springfield-Fairfield Mall-Westover-South Hadley).

Springfield
Amtrak—from Washington (D.C.), New York City, Hartford, Montreal, Boston (South Station), Albany, Chicago.
Blue Line Bus—from New London (Conn.).
Bonanza—from Providence, Albany (N.Y.), Pittsfield.
Greyhound—from New York City, Hartford, Albany (N.Y.), Worcester, Boston.
Peter Pan Bus—from Deerfield, Bradley Airport, Worcester, Woods Hole, Boston/Trailways.
Trailways—from New York City, Hartford, New Haven, Haverhill, Worcester.
Vermont Transit—from White River Junction (Vt.).
All Springfield Street Railway and Longueil buses—Holyoke. Street Railway Buses 217 & 221. Also Springfield-Agawam Bus 704.

Westfield
PVTA/Springfield 110 (Springfield-Westfield).
PVTA/Holyoke 208 (Holyoke-Westfield *via* Hampton Ponds).
Peter Pan 504 (Springfield-Westfield-Westfield State College).

West Springfield
PVTA/Springfield 110 (Springfield-Westfield).
PVTA/Springfield 111 (Springfield-Holyoke *via* Riverdale).
PVTA/Holyoke 217 (Holyoke-Springfield *via* Riverdale).
PVTA/Peter Pan 504 (Springfield-Westfield-Westfield State College).
PVTA/Springfield-Agawam 704 (Springfield-Agawam).

Wilbraham (North Wilbraham)
Peter Pan—from Worcester, Springfield, Boston/Trailways.
PVTA/Peter Pan Bus 502 (Springfield-Eastfield Mall-North Wilbraham-Palmer).
PVTA/Longueil Bus 401 (Springfield-Wilbraham-North Wilbraham).
PVTA/Longueil Bus 403 (Springfield-Sixteen Acres-Eastfield Mall).

Williamsburg
PVTA/Western Mass. 702 (Northampton-Williamsburg).

B. ASSUMPTIONS AND PROJECTIONS FOR THE ECONOMY
COMMONWEALTH OF MASSACHUSETTS
FEDERAL FISCAL YEAR 1982 (FFY'82)

The Job Market Research staff of the Division of Employment Security gathers data; analyzes and reports on changes in the state's employment and unemployment situation. Even utilizing the most current data and computer models of the state and national economies, it is difficult to project future economic conditions. Forecasting is especially difficult during times of rapid change, such as we have been experiencing. The economic forecasts presented in this report are based on data available at the end of May, 1981.

1) Employment

Total employment in Massachusetts, reported in the Current Population Statistics (CPS) series, is expected to average 2,814,000 during FFY'82, an increase of about 30,000 from FFY'81.

Nonagricultural wage and salary jobs, reported in the Current Employment Statistics series (CES-790) is expected to average 2,731,100, an increase of 50,000 jobs from FFY'81 to FFY'82.

It is important to remember that the CPS estimates the number of people employed or unemployed based on their place of residence, whereas the CES-790 estimates the number of jobs based on employer location. Massachusetts has traditionally had a large proportion of dual job holders. Much of the job increase in services and in wholesale and retail trade will be part-time positions.

PROJECTED EMPLOYMENT BY INDUSTRY GROUP

Industry	Employment (in 000's)		
	FFY 1980 (Actual)	FFY 1981 (Projected) 1/	FFY 1982 (Projected)
TOTAL NONAGRICULTURAL EMPLOYMENT	2642.2	2679.1	2731.1
Manufacturing - Total	675.7	669.1	681.6
Durable Goods	409.5	410.8	425.1
Nondurable Goods	266.2	258.3	256.5
Construction	74.8	74.3	81.7
Transportation, Communications and Public Utilities	122.0	124.8	125.2
Wholesale and Retail Trade	570.7	579.2	594.0
Finance, Insurance and Real Estate	157.6	162.5	165.4
Services	629.2	664.8	690.1
Government	412.3	404.3	393.1
Federal	58.5	57.5	56.0
State	97.5	98.6	96.6
Local	256.5	248.2	240.5

1/ Projection based on actual data for seven months and estimates for five months.

2) Unemployment

We project that Massachusetts' unemployment rate will average 5.7 percent during FFY'82, down from 5.9 percent in FFY'81 and one to one-and-a-half percentage points below the national average of 6.9 percent in FFY'82.

	MASSACHUSETTS				U.S.
	Labor Force (in 000's)	Employment (in 000's)	Unemployment (in 000's)	Unemp. Rate(%)	Unemp. Rate(%)
FFY'80	2863.6	2703.3	160.3	5.6	6.8
FFY'81	2957.1	2783.8	173.3	5.9	7.4
FFY'82	2984.1	2814.0	170.1	5.7	6.9

3) Labor Turnover in Manufacturing

Due to a strengthening economy, the number of layoffs is anticipated to decline in FFY'82. On the other hand, the level of quits may also be comparatively low, reflecting in part some uncertainty among the labor force about the strength of the job market. Recalls, which are a function of prior layoffs will be low. The growth in the durable goods industries will be reflected in a stronger rate of new hires.

4) Wages and Inflation

Wages are expected to increase by 8.7 percent, down slightly from the 9.5 percent increase in FFY'81. Total Massachusetts personal income, however, is expected to rise by nearly 11.5 percent. If the proposed decrease in federal personal income taxes takes effect, total disposable income may rise by as much as 12.5 percent. For the first time in several years, the increase in personal income will be greater than the rate of inflation. The era of double-digit inflation is expected to end during FFY'82. The projected increase in the Boston Consumer Price Index (CPI) is 8.7 percent, down from the 11.4 percent in FFY'81. Massachusetts' FFY'81 and '82 rates are both below the national CPI increases for these periods.

5) Credit

Consumers wanting loans of any type; mortgage, home repair, car, or personal; will find that the supply of money will continue to be very tight, with interest rates remaining variable but high throughout FFY'82. Currently, interest rates on home mortgages are over 16 percent, on personal loans over 18 percent, and on commercial and construction loans about 20 percent, however, loans are being made at both higher and lower rates. Banks and credit unions have significantly decreased or stopped making certain kinds of loans altogether.

A major cause of the tight money situation is the shift of money from regular savings accounts, where rates are limited by law, to savings certificates, money market accounts, and treasury obligations. All interest rates are sensitive to changes in U.S. Treasury and Federal Reserve Bank Policies. The size of the Federal tax cut and of the Federal budget deficit will influence the amount and cost of credit in FFY'82. More loan money is expected to go to commercial borrowers next year rather than to those purchasing homes or cars.

There are several pieces of legislation pending before Congress which are expected to affect the level of savings, and thus the amount of credit available. Perhaps the most important is the tax cut, which will increase the amount of disposable (and potentially savable) income. Congress is also considering bills that would: 1.) free certain amounts of savings income from taxes, and 2.) gradually lift the restrictions on the amount of interest banks can pay on passbook accounts.

6) Defense Contracts

Defense contract spending is expected to increase. The dollar value of military prime contracts going to Massachusetts firms has been over five percent of the total awarded nationally for the last three years. We expect our percentage share of the awards to remain steady or increase slightly. With the proposed increase in military spending in the coming years, defense contracts in Massachusetts should provide strong support for the state's economy.

7) Energy

Energy costs are not expected to rise as rapidly during FFY'82 as they have in the recent past. From January 1979 to January 1981 the average price for a gallon of home heating oil rose 104.7 percent in Massachusetts. Continued conservation and conversion to less expensive energy sources will help to hold future prices down. The industrial mix in Massachusetts is not, relatively, energy intensive, therefore, we do not expect that rising energy costs will hurt our industrial production to the extent it may in the rest of the nation. The present world oil glut should moderate gasoline and oil prices. The unknown in the energy situation remains Mideast political conflicts.

8) Exports

Massachusetts will continue to rank among the top ten states exporting manufactured products. Our leading exports will remain high technology equipment: instruments, electronic equipment, and computers. The actual demand for these products will be influenced by the rate of economic recovery in the European Common Market countries.

C. Population and Labor Force Characteristics and Trends

A comparison of the Springfield-Chicopee-Holyoke LMA labor force by age, race and sex (April 1970 Census) with figures projected to July 1982 using data from the Lawrence-Berkeley Laboratory of the University of California derived from the 1980 Census, can be found in Table 1. All groups showed an increase except white males, 35 and older, which showed a considerable decline.

Table 2 and 3 are more detailed breakouts of population and labor force projections through Fiscal Year 1982 for the labor market area and Hampden County, (CETA Prime Sponsor) respectively. The projected unemployment rate of 6.6 percent for the area is dependent upon the slowing down of the general economy in FY 1982. Throughout the 1970's, the participation rate of women in the labor force increased steadily, and their trend is expected to continue well in the 1980's. Table 2 and 3 also demonstrate the high rate of unemployment which prevails amongst youths (16-24) in the area. This is especially noticeable among blacks and Spanish speaking youth many of whom are migrating into the area and are facing many barriers to employment.

D. Commuting Patterns

Since a Labor Market Area is one in which the jobs are within commuting distance of the laborforce, the following transportation information should help workers traveling by automobile, bus, or train.

For the automobile driver, Map I shows the highways linking the many cities and towns in the Labor Market Area. May II shows the main roads as they tie into the highways in the greater Springfield Area.

Map III helps the commuter traveling by bus or train to locate the proper terminal in Springfield, Holyoke or Amherst. Page 8 and 9 lists the buses connecting most cities and towns throughout the area.

Table 1
Labor Force Composition Projected Change

1970 - 1982

Springfield-Chicopee-Holyoke LMA

Race and Age	April 1, 1970	July 1, 1982	Change 1970 to 1982	
			Number	Percent
TOTAL	234,135	270,100	+35,965	+ 15.4
White Males	134,426	127,831	- 6,595	- 4.9
16-17	4,329	6,686	+ 2,357	+ 54.4
18-19	4,913	5,638	+ 725	+ 14.8
20-24	15,037	18,953	+ 3,916	+ 26.0
25-34	26,792	27,517	+ 725	+ 2.7
35-44	26,601	22,325	- 4,276	- 16.1
45-64	50,836	41,553	- 9,273	- 18.2
65+	5,918	5,159	- 759	- 12.9
White Females	91,069	121,430	+30,361	+ 33.3
16-17	3,555	7,939	+ 4,384	+123.3
18-19	5,672	5,248	- 424	- 7.5
20-24	13,693	20,217	+ 6,524	+ 47.6
25-34	12,596	27,964	+15,368	+122.0
35-44	16,053	20,744	+ 4,691	+ 29.2
45-64	35,774	35,788	+ 14	+ 0.0
65+	3,726	3,530	- 196	- 5.2
Nonwhite Males	4,743	10,529	+ 5,786	+122.0
16-17	81	355	+ 274	+338.0
18-19	218	461	+ 243	+111.0
20-24	645	1,897	+ 1,252	+194.1
25-34	1,411	2,958	+ 1,547	+110.0
35-44	1,050	2,084	+ 1,034	+ 98.5
45-64	1,221	2,572	+ 1,351	+111.0
65+	117	202	+ 85	+ 72.6
Nonwhite Females	3,897	10,310	+ 6,413	+164.6
16-17	88	310	+ 222	+252.3
18-19	267	539	+ 222	+102.0
20-24	594	1,319	+ 725	+122.1
25-34	1,004	2,714	+ 1,710	+170.3
35-44	1,027	2,933	+ 1,906	+185.6
45-64	806	2,247	+ 1,441	+178.9
65+	111	227	+ 116	+104.5

Table 2
Population and Labor Force Composition Projections
Fiscal Year 1982

Springfield-Chicopee-Holyoke LMA

Category	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Labor Force Participation Rate
16 Years & Older	447,307	270,100	252,273	17,827	6.6	60.4
White Male	188,169	127,831	121,616	6,215	4.9	67.9
16-17	11,072	6,686	6,167	519	7.8	60.4
18-19	11,072	5,638	5,022	616	10.9	50.9
20-24	27,323	18,953	17,611	1,342	7.1	69.4
25-34	31,747	27,517	26,285	1,232	4.5	86.7
35-44	25,612	22,325	21,664	661	3.0	87.2
45-64	55,062	41,553	40,109	1,444	3.6	75.5
65+	26,282	5,159	4,758	401	7.3	19.6
White Female	224,321	121,430	112,919	8,511	7.0	54.1
16-17	10,109	7,939	6,913	1,026	12.9	78.5
18-19	10,109	5,248	4,773	475	9.1	51.9
20-24	30,099	20,217	18,964	1,253	6.2	67.2
25-34	41,027	27,964	26,658	1,306	4.7	68.2
35-44	28,715	20,744	19,737	1,007	4.9	72.2
45-64	61,783	35,788	32,743	3,045	8.5	57.9
65+	42,478	3,530	3,131	399	11.3	8.3
Black Male	8,367	5,945	4,979	966	16.2	71.1
16-17	657	211	129	82	38.9	32.0
18-19	657	318	229	89	30.0	48.4
20-24	1,392	969	704	265	27.4	69.6
25-34	2,021	1,739	1,538	201	11.6	86.0
35-44	1,356	1,146	1,007	139	12.1	84.5
45-64	1,846	1,433	1,255	178	12.4	77.6
65+	437	130	118	12	9.2	29.8
Black Female	10,734	5,971	4,667	1,304	21.8	55.6
16-17	679	301	228	73	24.3	44.4
18-19	679	400	304	96	24.0	59.0
20-24	1,372	840	486	354	42.1	61.2
25-34	2,883	1,800	1,454	346	19.2	62.4
35-44	1,884	1,352	1,013	339	25.1	71.8
45-64	2,417	1,169	1,087	82	7.0	48.4
65+	819	108	94	14	13.0	13.2

Table 2
Population and Labor Force Composition Projections
Fiscal Year 1982

Springfield-Chicopee-Holyoke LMA
(continued)

Category	Population	Labor Force	Employment	Unemploy-ment	Unemploy-ment Rate	Labor Force Participation Rate
16 Years and Older						
Other Males	6,918	4,584	4,113	471	10.3	66.3
16-17	345	144	104	40	27.8	41.8
18-19	345	143	100	43	30.1	41.5
20-24	1,151	928	799	129	13.9	80.6
25-34	1,795	1,120	1,022	98	8.8	62.4
35-44	1,592	1,038	970	68	6.6	65.2
45-64	1,322	1,139	1,052	87	7.6	86.1
65+	368	72	66	6	8.3	19.7
Other Females	8,798	4,339	3,979	360	8.3	49.3
16-17	306	69	56	13	18.8	22.6
18-19	306	70	56	14	19.4	45.5
20-24	689	479	381	98	20.5	69.5
25-34	1,906	944	848	96	10.2	49.5
35-44	2,423	1,580	1,486	94	6.0	65.2
45-64	2,514	1,078	1,046	32	3.0	42.9
65+	654	119	106	13	10.9	18.1
Nonwhite Male	15,285	10,529	9,092	1,437	13.4	68.9
16-17	1,002	355	233	122	34.4	35.4
18-19	1,004	461	329	132	28.6	45.9
20-24	2,543	1,897	1,503	394	20.7	74.6
25-34	3,816	2,958	2,559	399	13.5	27.5
25-44	2,948	2,084	1,977	107	4.7	77.4
45-64	3,168	2,572	2,307	265	10.3	81.2
65+	804	202	184	18	8.9	25.1
Nonwhite Females	19,532	10,310	8,646	1,664	16.1	52.8
16-17	985	301	228	73	24.3	30.6
18-19	985	539	416	123	22.8	54.7
20-24	2,061	1,319	867	452	34.3	64.0
25-34	4,789	2,744	2,302	442	16.1	57.3
35-44	4,307	2,933	2,500	433	14.8	68.1
45-64	4,932	2,247	2,133	114	5.0	45.6
65+	1,473	227	200	27	11.9	15.4

Table 3
Population and Labor Force Composition Projections
Fiscal Year 1982
Hampden County

Category	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Labor Force Participation Rate
16 Years & Older	341,491	210,800	196,700	14,100	6.7	61.7
White Males	143,775	101,698	96,894	4,804	4.7	70.7
16-17	8,145	4,981	3,596	385	7.7	61.1
18-19	8,145	5,056	4,607	449	8.9	62.1
20-24	19,105	15,038	14,035	1,003	6.7	78.7
25-34	24,664	21,964	21,013	951	4.3	89.1
35-44	19,557	17,313	16,763	550	3.2	88.5
45-64	43,409	33,335	32,173	1,162	3.5	76.8
65+	20,750	4,010	3,707	304	7.6	19.3
White Females	165,454	89,172	82,836	6,336	7.1	53.9
16-17	7,747	6,187	5,446	741	12.0	79.9
18-19	7,747	5,268	4,917	351	6.7	68.0
20=24	18,575	12,818	11,874	944	7.4	69.1
25-34	26,692	17,758	16,758	1,000	5.6	66.5
35-44	22,299	15,949	15,179	770	4.8	71.5
45-64	48,768	28,479	26,239	2,240	7.9	58.4
65+	33,624	2,713	2,423	290	10.7	8.1
Black Males	7,839	5,717	4,848	869	15.2	72.9
16-17	661	216	143	73	33.8	32.7
18-19	661	377	298	79	21.0	57.0
20-24	1,248	886	649	237	26.8	71.0
25-34	1,737	1,521	1,337	184	12.1	87.6
35-44	1,375	1,211	1,086	125	10.3	88.1
45-64	1,738	1,378	1,217	161	11.7	79.3
65+	419	130	120	10	7.7	31.0
Black Females	10,138	5,677	4,513	1,164	20.5	56.0
16-17	672	307	242	65	21.2	45.7
18-19	672	423	337	86	20.3	63.0
20-24	1,193	720	407	313	43.5	60.4
25-34	2,630	1,642	1,332	310	18.9	62.4
35-44	1,885	1,353	1,052	301	22.3	71.8
45-64	2,330	1,141	1,064	77	6.8	49.0
65+	757	91	79	12	13.2	12.0

Table 3
Population and Labor Force Composition Projections
Fiscal Year 1982

Hampden County
(continued)

Category	Population	Labor Force	Employment	Unemployment	Unemployment Rate	Labor Force Participation Rate
16 Years & Older						
Other Males	5,801	4,096	3,683	413	10.1	70.6
16-17	288	87	52	35	40.2	30.2
18-19	288	88	50	38	43.2	30.6
20-24	802	672	559	113	16.8	83.8
25-34	1,555	1,371	1,284	87	6.4	88.2
35-44	1,143	730	671	59	8.1	63.9
45-64	1,320	1,074	999	75	7.0	81.4
65+	405	74	68	6	8.1	18.3
Other Females	8,484	4,440	3,926	514	11.6	52.3
16-17	185	84	55	29	34.5	45.4
18-19	185	85	47	38	44.7	46.0
20-24	272	243	105	138	56.8	89.3
25-34	1,015	564	427	137	24.3	55.6
35-44	2,995	1,844	1,711	133	7.2	61.6
45-64	2,959	1,521	1,487	34	2.2	51.4
65+	873	99	94	5	5.0	11.3
Nonwhite Males	13,640	9,813	8,531	1,282	13.1	71.9
16-17	949	303	195	108	35.6	31.9
18-19	949	465	348	117	25.2	49.0
20-24	2,050	1,558	1,208	350	22.5	76.0
25-34	3,292	2,892	2,621	271	9.4	87.9
35-44	2,518	1,941	1,757	184	9.5	77.1
45-64	3,058	2,452	2,219	236	9.6	80.2
65+	824	202	186	16	7.9	24.5
Nonwhite Females	18,622	10,117	8,439	1,678	16.6	54.3
16-17	857	391	297	94	24.0	45.6
18-19	857	508	384	124	24.4	59.3
20-24	1,465	963	512	451	46.8	65.7
25-34	3,645	2,206	1,759	447	20.3	60.4
35-44	4,880	3,197	2,763	434	13.6	65.5
45-64	5,288	2,662	2,551	111	4.2	50.3
65+	1,630	190	173	17	9.0	11.7

Table 4
Labor Force Data*
1979 and 1980 Annual Averages
Springfield-Chicopee-Holyoke LMA

Date	Labor Force	Employment	Unemployment	Rate Of Unemployment
1979				
January	275.6	258.1	17.5	6.3
February	276.5	261.0	15.5	5.6
March	276.6	259.5	17.1	6.2
April	272.6	259.8	12.8	4.7
May	271.0	259.5	11.5	4.3
June	274.3	262.3	12.0	4.4
July	278.5	267.2	11.3	4.0
August	277.4	266.1	11.3	4.1
September	275.7	261.3	14.4	5.2
October	266.4	256.8	9.6	3.6
November	267.1	256.7	10.4	3.9
December	274.0	258.9	15.1	5.5
Annual Averages	273.8	260.6	13.2	4.8
1980				
January	266.7	251.1	15.1	5.6
February	266.1	257.7	13.4	5.0
March	267.5	254.6	12.9	4.8
April	268.0	254.8	13.2	4.9
May	272.1	255.5	16.6	6.6
June	269.4	252.4	17.0	6.3
July	271.1	255.0	16.1	5.9
August	274.0	257.2	16.8	6.1
September	270.9	254.9	16.0	5.9
October	280.5	264.4	16.1	5.7
November	227.9	265.1	12.8	4.6
December	278.8	265.7	13.1	4.7
Annual Averages	271.9	257.0	14.9	5.5

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* In thousands

Table 5
CETA Prime Sponsors
Hampden County and Hampshire County
Labor Force Annual Averages
1980

Location	Labor Force	Employment	Unemployment	Rate Of Unemployment
Hampden County (CETA Prime Sponsor Area)				
Cities				
Chicopee	29,789	28,070	1,769	5.9
Holyoke	23,681	22,025	1,656	7.0
Springfield	79,012	74,033	4,979	6.3
Westfield	15,184	14,371	813	5.4
Towns				
Agawam	11,275	10,651	624	5.5
Brimfield	964	891	73	7.6
East Longmeadow	6,140	5,988	152	2.5
Granville	504	461	43	8.5
Hampden	1,972	1,874	98	5.0
Longmeadow	6,636	6,477	159	2.4
Ludlow	9,410	8,856	554	5.9
Monson	3,005	2,837	168	5.6
Montgomery	194	180	14	7.2
Palmer	5,988	5,703	285	4.8
Russell	689	675	14	2.0
Southwick	2,887	2,765	122	4.2
Wales	402	391	11	2.7
West Springfield	14,754	13,954	800	5.4
Wilbraham	5,479	5,314	165	3.0
Subtotal	217,965	205,466	12,499	5.7
Hampshire County (CETA Prime Sponsor Area)				
City				
Northampton	13,920	13,334	586	4.2
Towns				
Amherst	11,205	10,640	565	5.0
Belchertown	2,321	2,235	86	3.7
Chesterfield	297	291	6	2.0
Easthampton	6,956	6,645	311	4.5
Granby	2,442	2,312	130	5.3
Hadley	2,147	2,075	72	3.4
Hatfield	1,433	1,331	102	7.1
Pelham	765	739	26	3.4
Southampton	1,352	1,326	26	1.9
South Hadley	8,034	7,651	383	4.8
Westhampton	461	438	23	2.8
Williamburg	1,237	1,202	35	2.8
Subtotal	52,570	50,219	2,351	4.5
Springfield-Chicopee-Holyoke Labor Market Area - Total	270,535	255,685	14,850	5.5

Table 6
Job Matching Servicing Centers
Labor Force Annual Averages
Springfield-Chicopee-Holyoke LMA
1980

Location	Labor Force	Employment	Unemployment	Rate Of Unemployment
Chicopee				
Servicing - Chicopee	29,789	28,020	1,769	5.9
Total	29,789	28,020	1,769	5.9
Holyoke				
Servicing - Granby	2,442	2,312	130	5.3
Holyoke	23,681	22,025	1,656	7.0
South Hadley	8,034	7,651	383	4.8
Total	34,157	31,988	2,169	6.4
Northampton				
Servicing - Amherst	11,205	10,640	565	5.0
Chesterfield	297	291	6	2.0
Cummington	301	259	42	14.0
Easthampton	6,956	6,645	311	4.5
Goshen	237	223	14	5.9
Hadley	2,147	2,075	72	3.4
Hatfield	1,433	1,331	102	7.1
Northampton	13,920	13,334	586	4.2
Pelham	765	739	26	3.4
Plainfield	2,245	2,139	106	4.7
Southampton	1,352	1,326	26	1.9
Westhampton	461	438	23	5.0
Williamsburg	1,237	1,202	35	2.8
Worthington	367	281	86	23.4
Total	42,923	40,923	2,000	4.7

Table 6
Job Matching Servicing Centers
Labor Force Annual Averages
Springfield-Chicopee-Holyoke LMA
1980

(continued)

Location	Labor Force	Employment	Unemployment	Rate Of Unemployment
Springfield				
Servicing - Agawam	11,275	10,651	624	5.5
Blandford	422	412	10	2.4
Chester	454	426	28	6.2
East Longmeadow	6,140	5,988	152	2.5
Granville	504	461	43	8.5
Hampden	1,972	1,874	98	5.0
Huntington	643	605	38	5.9
Longmeadow	6,636	6,477	159	2.4
Ludlow	9,410	8,856	554	5.9
Middlefield	123	113	10	8.1
Montgomery	194	180	14	7.2
Russell	689	675	14	2.0
Southwick	2,887	2,765	122	4.2
Springfield	79,012	74,033	4,979	6.3
Tolland	91	67	24	26.4
West Springfield	14,754	13,954	800	5.4
Westfield	15,184	14,371	813	5.4
Wilbraham	5,479	5,314	165	3.0
TOTAL	155,869	147,222	8,647	5.5

Table 7
Characteristics of Insured Unemployed By Place of Residence Springfield-Chicopee-Holyoke LMA Divided Into CETA Prime Sponsors*
March 1981

Cities/Towns	Total Claims	White	Nonwhite	Spanish Surname	Other	Non-Coded
Hampden County (CETA Prime Sponsor Area)						
Cities						
Chicopee	987	978	00	04	05	00
Holyoke	618	477	15	121	03	02
Springfield	2,293	1,754	375	156	03	05
Westfield	386	365	02	16	02	01
Towns						
Agawam	305	295	02	01	07	00
Brimfield	39	39	00	00	00	00
East Longmeadow	115	115	00	00	00	00
Granville	87	85	00	00	02	00
Hampden	48	48	00	00	00	00
Longmeadow	90	87	02	01	00	00
Ludlow	432	424	01	05	02	00
Monson	80	79	01	00	00	00
Montgomery	02	02	00	00	00	00
Palmer	208	208	00	00	00	00
Russell	20	19	01	00	00	00
Southwick	112	108	00	01	03	00
Wales	13	13	00	00	00	00
West Springfield	284	277	04	00	02	01
Wilbraham	89	87	01	00	01	00
Subtotal	6,208	5,460	404	305	30	09
Hampshire County (CETA Prime Sponsor Area						
Cities						
Northampton	328	312	03	07	05	01
Towns						
Amherst	114	108	04	01	01	00
Belchertown	106	103	00	00	02	01
Chesterfield	20	20	00	00	00	00
Easthampton	242	238	01	02	01	00
Granby	10	10	00	00	00	00
Hadley	38	38	00	00	00	00
Hatfield	43	43	00	00	00	00
Pelham	30	29	00	00	01	00
Southampton	44	44	00	00	00	00
South Hadley	188	181	01	03	02	00
Westhampton	03	03	00	00	00	00
Williamsburg	49	49	00	00	00	00
Subtotal	1,215	1,178	09	13	13	02
Warren County						
Warren	47	46	00	00	01	00
Subtotal	47	46	00	00	01	00
Springfield-Chicopee-Holyoke LMA - Total	7,470	6,684	413	318	44	11

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* Hampden County, and Hampshire County

Table 8
Characteristics of Insured Unemployed
By
Local Job Insurance Centers
Springfield-Chicopee-Holyoke LMA
March 1981

	Total Claims	White	Nonwhite	Spanish Surname	Other	Non-Coded
Office - Chicopee						
Chicopee	987	978	00	04	05	00
Subtotal	987	978	00	04	05	00
Office - Holyoke						
Granby	10	10	00	00	00	00
Holyoke	618	477	15	121	03	02
South Hadley	188	181	01	03	03	00
Subtotal	816	668	16	124	06	02
Office-Northampton						
Amherst	114	108	04	01	01	00
Chesterfield	20	20	00	00	00	00
Cummington	06	06	00	00	00	00
Easthampton	242	238	01	02	01	00
Goshen	10	10	00	00	00	00
Hadley	38	38	00	00	00	00
Hatfield	43	43	00	00	00	00
Northampton	328	312	03	07	05	01
Pelham	30	29	00	00	01	00
Plainfield	08	08	00	00	00	00
Southampton	44	44	00	00	00	00
Westhampton	03	03	00	00	00	00
Williamsburg	49	49	00	00	00	00
Worthington	16	16	00	00	00	00
Subtotal	951	924	08	10	08	01
Office-Springfield						
Agawam	305	295	02	01	07	00
Blandford	22	21	00	00	01	00
Chester	12	11	01	00	00	00
East Longmeadow	115	115	00	00	00	00
Granville	87	85	00	00	02	00
Hampden	48	48	00	00	00	00
Huntington	27	27	00	00	00	00
Longmeadow	90	87	02	01	00	00
Ludlow	432	424	01	05	02	00
Middlefield	02	02	00	00	00	00
Montgomery	02	02	00	00	00	00
Russell	20	19	01	00	00	00
Southwick	112	108	00	01	03	00
Springfield	2,293	1,754	375	156	03	05
Tolland	01	01	00	00	00	00
West Springfield	284	277	04	00	02	01
Westfield	386	365	02	16	02	01
Wilbraham	89	87	01	00	01	00
Subtotal	4,327	3,728	389	180	23	07
TOTAL	7,081	6,298	413	318	42	10

Table 9
Characteristics of Insured Unemployed
Employed Part-time For Economic Reasons
Springfield-Chicopee-Holyoke LMA

Fiscal Year	Nonagricultural Wage and Salary Employment	Estimated Employed Part-time For Economic Reasons
1979*	232,300	9,545
1980*	234,200	9,602
1981**	230,300	9,442
1982**	226,200	9,274

* Actual
** Projected

Table 10
Characteristics of Applicants Registered
At the Job Matching Centers
For The Springfield-Chicopee-Holyoke LMA

Total Active Applicants	Female	Econom. Disadv.	Veteran	Nonwhite Minority	Age Breakdown		Handi-capped
					Under 22	Over 45	
19,345	10,473	11,343	2,643	5,743	2, 911	3,260	799

Source: DES ESARS Table 6, March 1981

Table 11
Characteristics of Applicants Registered
At the Job Matching Centers For The
Springfield-Chicopee-Holyoke LMA
March 1981

Occupational Code and Category	Total Applicants Fiscal Year to Date	Total Active Applicants	Unfilled Job Openings	Ratio Of Active Applicants to Unfilled Job Openings
0-1 Professional, Technical and Managerial	3,821	1,855	287	6/1
Manager, Retail Store	175	90	2	45/1
2 Clerical and Sales	6,400	3,169	161	20/1
General Clerks	576	325	8	41/1
3 Services	5,955	3,586	595	6/1
Nurse Aide	597	405	27	15/1
4 Agricultural, Fishery, Forestry	719	432	104	4/1
5 Processing	821	492	26	19/1
Baker	21	13	1	13/1
6 Machine Trades	2,876	1,487	47	32/1
Auto Mechanics	183	92	2	46/1
7 Bench Work	2,421	1,518	54	28/1
Electronic Assembler	265	160	12	13/1
8 Structural Work	2,215	1,179	57	21/1
Construction Worker	252	142	6	24/1
9 Miscellaneous	4,310	2,439	134	18/1
Material Handler	1,683	892	10	89/1

Source: DES Table 96 ESARS - March 1981

Table 12

Economically Disadvantaged 18 Years and Over
Hampden County Manpower Consortium
Fiscal Year 1982

Group	Number
Total	54,807
White	39,498
Black	11,229
All Other	4,080
Spanish	4,871

Source: Lawrence Berkeley Laboratory
Tabulations 98 and 99

1980 Census of Population
Report PHC 80-V-23

III. Employment Developments and Outlook by Industry

A. Economic Assumptions and Economic Outlook in the Springfield-Chicopee-Holyoke LMA

In making an economic forecast for the Springfield-Chicopee-Holyoke LMA for Fiscal Years 1981 and 1982, it is assumed that the following conditions will prevail:

1. Inflation which reached double-digit figures in Fiscal Year 1979 and gained additional momentum in Fiscal Year 1980, appears to be levelling off in the first half of Fiscal Year 1981, but could remain close to 10 percent for some time.

2. High prices and restricted credit are diminishing consumer confidence and buying power.

3. Demand for capital goods (capital investment), which has improved over the past year, could slow down, especially if the Administration persists in its "tightening credit" policy.

4. All types of energy will be available, but the cost could be detrimental to desired growth.

5. A national recession was firmly established by the third quarter of Fiscal Year 1980 and still persists well into Fiscal Year 1981.

On the basis of these assumptions the Springfield-Chicopee-Holyoke Labor Market Area can be expected to follow these main trends through fiscal years 1981 and 1982.

Production of goods and services (and, as a result, employment) which grew throughout FY 1980 will drop off considerably in the production of goods but only slightly in the production of services in Fiscal Years 1981 and 1982.

Table 13

Nonagricultural Wage and Salary Employment by
Major Industrial Groups, Projections Through FY's 1981 and 1982
Springfield-Chicopee-Holyoke LMA

Industrial Groups	Average FY 1979	 FY 1980	Average FY 1981	 FY 1982
	Experience		Projection	
Nonagricultural Total*	232.8	234.2	230.3	226.2
Manufacturing Total	66.9	67.9	63.9	60.1
Durable Goods Total	30.2	30.7	29.9	29.1
Primary Metals	2.2	2.3	2.2	2.1
Fabricated Metals	10.0	10.0	10.1	10.2
Machinery (Nonelectrical)	8.8	9.2	8.8	8.3
Electrical Machinery	3.5	3.6	3.5	3.4
All Other Durable Goods**	5.7	5.6	5.3	5.1
Nondurable Goods Total	36.7	37.2	34.0	31.0
Textiles	2.0	1.9	1.7	1.5
Apparel	3.0	2.8	2.8	2.7
Paper	7.7	7.6	7.6	7.6
Printing	6.2	6.1	5.7	5.4
All Other Nondurable Goods***	17.8	18.8	16.2	13.8
Nonmanufacturing Total	165.9	166.3	166.4	166.1
Construction	6.1	6.5	6.9	7.5
Trans., Comm., & Public Utilities	9.4	9.3	9.4	9.5
Wholesale & Retail Grade	48.0	47.8	47.3	46.2
Fin., Ins., & Real Estate	12.5	13.1	13.4	13.7
Services, Mining, Miscellaneous	43.4	45.0	45.9	46.8
Government Total	46.5	44.6	43.5	42.4

* In Thousands

** All Other Durable Goods Includes Transportation Equipment.

*** All Other Nondurable Goods Includes Chemicals, Food, Leather, Rubber, Games, Toys, and Sporting Goods.

Table 14

Industry Share as Percent of Total Nonagricultural Employment Springfield-Chicopee-Holyoke LMA

Industry Title	Percent of Total Nonagricultural Employment		
	FY 1978	FY 1979	FY 1980
Nonagricultural Total	100.0	100.0	100.0
Manufacturing Total	28.79	28.74	29.00
Durable Goods Total	12.85	12.97	13.10
Primary Metals	0.91	0.95	0.98
Fabricated Metals	4.44	4.30	4.27
Machinery (Nonelectrical)	3.79	3.78	3.93
Electrical Machinery	1.31	1.50	1.54
All Other Durable Goods*	2.40	2.44	2.38
Nondurable Goods Total	15.94	15.77	15.90
Textiles	0.91	0.86	0.81
Apparel	1.35	1.29	1.20
Paper	3.31	3.31	3.25
Printing	2.62	2.66	2.60
All Other Nondurable Goods**	7.75	7.65	8.04
Nonmanufacturing Total	71.21	71.26	71.00
Contract Construction	2.40	2,62	2.78
Trans., Comm., & Public Utilities	4.05	4.04	3.97
Wholesale & Retail Trade	20.17	20.62	20.41
Fin., Ins., & Real Estate	5.36	5.37	5.59
Services, Mining, Miscellaneous	18.29	18.64	19.21
Government Total	20.94	19.97	19.04

* All Other Durable Goods Includes Transportation Equipment.

** All Other Nondurable Goods Includes Chemicals, Food, Leather, Rubber, Games, Toys, and Sporting Goods.

Table 15

Nonagricultural Wage and Salary Employment by
Major Industrial Groups, FY 1975 Compared to FY 1980
Springfield-Chicopee-Holyoke LMA
Historical Data

Industrial Groups	Annual Employment FY 1975	Annual Employment FY 1980	Amount Change	Percent Change
Nonagricultural Total*	210.7	234.2	+23.5	+11.2
Manufacturing Total	61.7	67.9	+ 6.2	+10.0
Durable Goods Total	27.1	30.7	+ 3.6	+13.3
Primary Metals	2.4	2.3	- 0.1	- 4.2
Fabricated Metals	8.9	10.0	+ 1.1	+12.4
Machinery (Nonelectrical)	7.7	9.2	+ 1.5	+19.5
Electrical Machinery	2.7	3.6	+ 0.9	+33.3
All Other Durable Goods**	5.4	5.6	+ 0.2	+ 3.7
Nondurable Goods Total	34.6	37.2	+ 2.6	+ 7.5
Textiles	1.7	1.9	+ 0.2	+11.8
Apparel	2.9	2.8	- 0.1	- 3.4
Paper	7.3	7.6	+ 0.3	+ 4.1
Printing	5.4	6.1	+ 0.7	+13.0
All Other Nondurable Goods***	17.3	18.8	+ 1.5	+ 8.7
Nonmanufacturing Total	149.0	166.3	+17.3	+11.6
Construction	6.3	6.5	+ 0.2	+ 3.2
Trans., Comm., & Public Utilities	8.8	9.3	+ 0.5	+ 5.7
Wholesale & Retail Trade	45.1	47.8	+ 2.7	+ 6.0
Fin., Ins., & Real Estate	10.8	13.1	+ 2.3	+21.3
Services, Mining & Miscellaneous	37.0	45.0	+ 8.0	+21.6
Government Total	41.0	44.6	+ 3.6	+ 8.8

* In Thousands

** All Other Durable Goods Includes Transportation Equipment.

*** All Other Nondurable Goods Includes Chemicals, Food, Leather, Rubber Games, Toys, and Sporting Goods.

Table 16
Numbers and Earnings of Production Workers by Industry
Springfield-Chicopee-Holyoke LMA
March 1981

Industry	Total Industry Employment*	Number of Production Workers*	Production Workers As a Percent of Total Industry Employment	Average Weekly Wages		
				Mar. 1981	Feb. 1981	Mar. 1980
Manufacturing	64.3	45.8	71.2	$277.71	$277.30	$258.67
Durable Goods	30.1	21.3	70.8	308.58	305.56	277.43
Fabricated Metals	10.2	7.9	77.5	310.17	306.91	272.16
Nonelectrical Machinery	8.8	5.9	67.0	346.83	346.30	309.64
Special Ind. Machinery	1.7	1.0	58.8	365.24	375.08	331.63
General Ind. Machinery	1.8	1.3	72.2	342.33	244.40	303.88
Nondurable Goods	34.2	24.5	71.6	251.47	252.23	242.60
Textiles	1.8	1.6	88.9	219.45	208.39	235.71
Apparel	2.8	2.2	78.6	171.71	175.30	161.73
Paper	7.6	5.8	76.3	300.42	307.01	284.05
Misc. Converted Paper	4.4	3.3	75.0	306.02	308.88	280.80
Printing	5.6	4.2	75.0	231.95	232.50	224.47
Chemicals	3.6	2.0	55.6	385.37	386.67	346.80
Rubber & Plastics	6.2	2.3	37.1	207.25	212.68	247.79

* In Thousands

Source: March Tables Bureau of Labor Statistics - 790
"Subject to Revision"

B. Employment Developments and Outlook by Industry Projected Through FY 1981 and 1982

Manufacturing Industries

Employment in the nonmanufacturing sector continues to make up close to 30 percent of total nonagricultural jobs in the Springfield-Chicopee-Holyoke LMA. This is unusual at this time when more and more firms are expanding, not in manufacturing, but in service oriented industries. Payrolls in factories rose by 10 percent between Fiscal Year 1975 and Fiscal Year 1980

Durable Goods Producing Industries

Employment in firms producing durable goods reached 30,700 in Fiscal Year 1980, a gain of 13.3 percent over the last recession in Fiscal Year 1975. In that last previous recession payrolls in the durable goods sector averaged 27,100. Exceptional growth has taken place due to the diversification of products and ability to obtain a growing share of the export business available, especially by firms producing fabricated metal products and computers. Employment is expected to remain stable despite the current recession. Wages in the durable goods sector has been running about 22.7 percent higher than those in the nondurable good sector in recent months.

Primary Metals Industry

In the Springfield-Chicopee-Holyoke LMA, employment in the primary metals industry never returned to the pre-1975 recession level of 3,500. For the past two years the total workforce in this industry has levelled off at 2,300, less than one percent of total nonagricultural employment in the labor market area (See Table 14).

Primary metals is a highly automated industry including makers of such heavy equipment as blast furnaces, extruders of cold rolled steel, drawers and insulators of nonferrous cable and wire, drop forge equipment providers, and foundries producing iron castings, copper products, and brass, bronze and other alloys. Most of its products are components of capital equipment or other sizeable finished goods and, therefore, susceptible to fluctuations in the business cycle. Orders for such products are normally the first to be affected by a recession. As the labor market area began to feel the effect of the current recession in the first half of Fiscal Year 1981, employment started to drop slightly. The total workforce in this industry should decline to about 2,200 in FY 1981 and a bit further to 2,100 in FY 1982, depending on the severity of the present recession.

Fabricated Metals Industry

In 1975, a large segment of the ordnance industry (production of small hand guns) was reclassified as part of the fabricated metals industry making it the area's largest employer in the manufacturing sector. Between FY 1975 and FY 1980 payrolls rose by 12.4 percent. By FY 1980, employment in this industry averaged close to 15 percent of total manufacturing employment and 4.3 percent of total nonagricultural employment in the area.

This industry is also affected by fluctuations in the business cycle, but not as much as the primary metals sector. Many of its products are finished goods enabling firms to build up inventories against future sales during a lull period. Firms have been able to expand their foreign markets considerably in recent years. Companies specializing in machining of iron and steel forged production or castings for capital goods producing industries (heavy industrial equipment) should feel the effect of any reduction in investment capital spending. This will depend on the severity of the recession. During the first six months of FY 1981, the unemployment rate averaged 5.8 percent in this area, and should not be considered severe. In the last recession (1975) the unemployment rate averaged 11.3 percent.

Over the past year, companies fabricating hand saws, metal doors, sheet metal items, screw machine products, and doing electroplating found their employment fairly stable. During the same period, employment dropped slightly in firms producing hardware for the automotive industry, valves and pipe fittings, and those doing coating and engraving on various metal productions. However, these losses in employment were more than offset by firms producing general hardware, heating equipment, fabricated structural metal products, and special screw machine items. It appears that employment will continue to improve somewhat over the next 18 months due to the diversification of the industries in this industrial category and could reach a record high of 10,200 workers by FY 1982.

Nonelectrical Machinery Industry

The nonelectrical machinery industry in this labor market area manufactures equipment for the food, textiles, paper, and printing industries. It also produces industrial compressors, mechanical power transmissions, computers, and a large variety of specialized heavy industrial machinery. In a recession demand for capital goods is usually the first to fall off, and nonelectrical machinery produced in this area is mostly capital goods. The current recession did not affect the nonelectrical equipment industry in area until the first half of fiscal year 1981, and during this period the number employed dropped to an average of 8,900 jobs from 9,200 during the previous six months.

Over the past year employment remained stable in firms producing paper machinery, printing equipment, and special industrial machinery. It rose slightly in companies manufacturing elevators, textile machinery, and computers. Nevertheless, sizeable declines in employment took place in firms producing packaging machinery and mechanical power transmission equipment. Workrolls could drop to 8,800 persons in Fiscal Year 1981 and 8,300 in Fiscal Year 1982. However, if the plans of two large computer companies to open plants in the greater Springfield-Chicopee-Holyoke labor market area come to fruition several thousand new jobs could open up by the end of 1982.

Average weekly wages in the nonelectrical machinery industry have been the highest in the hard goods producing sector in recent years.

Electrical Machinery Industry

During 1974 and 1980, employment in the electrical machinery industry reached, (and appears to have stabilized at), 3,600 workers, or 90 percent of the peak pre-recessionary year of 1974, when payrolls averaged 4,000.

Firms producing electronic coils and transformers were very stable over the past year. Those manufacturing electronic components, semi-conductors and related devices reported small gains over this period. However, producers of radio and TV transmitting equipment and electronic components for internal combustion engines especially those catering to the declining automobile industry have shown considerable declines during recent months. Employment can be expected to drop a bit further over the next 18 months.

All Other Durable Goods

The largest segment of the all other durable goods category is the transportation equipment industry which is divided into three sectors: vehicle parts, aircraft parts, and bicycles.

The vehicle parts business consists of a large firm that caters to the trucking industry. Exceptional growth in recent years has been attributed to expansion in the diesel power trucking industry; however, in recent months volume and employment has fallen off considerably. Employment could drop further due to the ailing automobile and trucking industry.

Payrolls in the aircraft parts business have been growing constantly over the past few years in this area. The strong and ever-growing national defense program, especially in the area of military aircraft, plus increased demand for commercial and private planes, should keep employment growing through Fiscal Year 1982.

The bicycle business is also a one firm industry in this area. This company is the second largest producer of bicycles in the nation. Sizeable layoffs have recently occurred in both the motorized and regular bicycles departments. The firm is constantly automating its production processes. This coupled with the present recession and increased competition should result in a decrease in employment through Fiscal Year 1982.

Nondurable Goods Industries

Payrolls in the nondurable goods producing sector have been affected by adverse economic conditions and are expected to decline during this recession.

In Fiscal Year 1980, employment in nondurable goods producing firms averaged 37,200, up by 7.5 percent from 34,600 recorded during the recession of Fiscal Year 1975. Soft goods manufacturing has provided close to 16 percent of total nonfarm employment in this labor market over the past three years.

Textiles Producing Industry

Even though this industry accounts for less than two percent of total nonagricultural employment, payrolls have averaged close to 2,000 jobs over new the past 10 years.

Competition at home and abroad has made the textile industry a highly automated industry. The introduction of "knits" into the market in recent years has forced the industry to develop new equipment and techniques to produce knitted fabrics. New methods of production have helped the industry in production of other textiles. New equipment enabled some plants to double their output with less help. The industry averages several hours a week in overtime for its workers, more than any other industry in the manufacturing division. (Employers prefer to increase hours worked over hiring with today's high cost of fringe benefits.) This practice also tends to keep total payrolls down over the long run. Employment in firms producing knitted and broad woven fabrics has fallen off considerably in recent months. Payrolls in those producing felt items have risen slightly. The total workforce in this sector should decline somewhat and level off at about 1,500 jobs in Fiscal Year 1982, again depending in the severity of the recession.

Apparel Industry

Extreme competition and limited opportunities to automate have made the apparel and related products industry the lowest paying of the manufacturing industries in the area, averaging about 38 percent less than that of all manufacturing in recent months. Average weekly hours have been running about 14.6 percent below those of all manufacturing. Only a few firms producing women's and children's dresses and undergarments are reporting stable employment. Others are showing declining payrolls. Employment should drop to about 2,700 workers over the next 18 months.

Paper Industry

Over the past three years employment in the paper industry stabilized at approximately 7,600 workers. Much of this stabilization has been accomplished by heavy investment in automatic equipment, and, in some cases, expanded facilities, enabling companies to handle excessive loads without much change in payrolls. Even with the current recession employment is not expected to vary by much, possibly stabilize at 7,600 over the next 18 months.

Printing Industry

Employment in the printing industry peaked in 1978 at 6,200 workers and levelled off throughout 1979 at the same figure. Payrolls began to drop at the start of the current recession (the second quarter of 1980) and have been on the decline, except for seasonal periods, ever since.

Employment in commercial printing and greeting cards has stabilized in recent months but not enough to offset losses in those sections producing blank books, manifold business forms, looseleaf binders and devices, and books for accounting and banking purposes. Payrolls could drop to about 5,400 by Fiscal Year 1982, depending on the severity of the recession.

All Other Nondurable Goods

Industries included in the all other nondurable goods category make up about 50 percent of the jobs in the nondurable goods sector in this labor market area. They consist largely of the following: chemicals, rubber, leather products, games and sporting goods, optical instruments and lenses, brushes and abrasives.

It will take some time for this general category to recover from the loss of 1,600 jobs in the rubber producing sector (closing of Uniroyal Tire Co. in July 1980). Large losses in payrolls over the past year took place in the chemicals industry (the high cost of petroleum and the current recession), and in the games producing industry. Employment could drop below 1,400 over the next 18 months.

Nonmanufacturing Industries

Nonmanufacturing industries, which provide about 71 percent of total nonagricultural employment in the Springfield-Chicopee-Holyoke Labor Market Area, will show a small gain in payrolls in Fiscal Year 1981, but lose 200-300 jobs during Fisal Year 1982, depending on the severity of the current recession.

Construction

Employment in construction has been on the rise over the past two years. Most of the improvement has been in the nonresidential sector, commercial or industrial. Residential construction has been limited to renovations. New home building continued to be plagued by high costs of construction and money. Many of the commercial projects started during the past two years are now coming to fruition. A substantial amount of plant growth began in the fall of 1978 also continues strongly. Much of this industrial expansion was the direct result of effort made by a relatively new state agency, the Massachusetts Industrial Finance Agency (MIFA), established in 1978. MIFA helped firms wishing to expand, (but having trouble getting funded), to obtain tax-exempt, low interest bonds. (See special section on MIFA in report). Employment in construction should continue to grow through 1982 if UDAG grants and MIFA provide stimuli for construction.

Transportation, Communication and Public Utilities

Business in the transportation, communication and public utilities industry has been very stable over the past four years averaging between 9,300 and 9,400 workers. Present commercial and industrial growth in this labor market area could bring employment in this sector up to 9,500 over the next year.

Wholesale and Retail Trade

The largest industrial workforce is in the wholesale and retail trade industry which supplies over 20 percent of the total nonagricultural jobs in this area. However, employment in wholesale and retail trade peaked at 48,000 in Fiscal Year 1979 and has been slowly declining ever since. During the past few years, the industry has become more and more automated. Electronic processing and materials handling equipment made it possible for distributors and retailers to cut down on the number of employees necessary to operate large warehouses and retail outlets and, at the same time take care of any increases in consumer spending. Employment which started to decline in Fiscal Year 1980 could drop even further over the next year, depending on the severity of the recession.

Finance, Insurance and Real Estate

Savings account withdrawals combined with high rates on money market certificates have been hurting the banks for two years. Insurance companies have been hurt by policy holders borrowing against policies (many at low fixed rates) and investing in money markets. In fact some lending institutions have had to put on additional help to take care of increased withdrawals or loans. To increase their deposits banks are now selling savings certificates paying higher interest rates, with maturities ranging from six months to eight months, and thereby competing with money market funds. One large insurance firm is promoting a new policy with "variable" returns to its policy holders.

The real estate business has been hurt for some time due to the slump in home building. There appears to be no relief in sight.

Employment in the finance, insurance, and real estate industry will increase slightly over the next 18 months but not at the pace it has experienced in recent years.

Services

Services continues to be one of the industries with the largest growth in jobs in the area. Amusements and recreational facilities and health and educational institutions continue to provide the largest gains in personnel. Employment was further bolstered by the booming convention and exposition business over the past several years. However, growth in payrolls in Fiscal Years 1981 and 1982 is expected to be at a diminished rate due to the recession.

Government

Local governments will have to adjust their payrolls with budget cuts to meet the demands of Proposition 2½ during Fiscal Year 1982, starting in July. In Federal Fiscal Year 1982, starting in October, federal employment in this labor market area can expect a significant reduction due to cuts in the new federal budget. State government will also have to adjust its fiscal 1982 budget to help cities and towns and adopt its programs to losses in federal funding. A substantial share of the losses expected in government employment over the next year will be handled by attrition. Government employment can be expected to drop by 2.5 percent in Fiscal Year 1981 and another 2.5 percent in Fiscal 1982.

C. Massachusetts Industrial Finance Agency (MIFA)

MIFA is an independent public agency designed to stimulate increased employment through tax-exempt financing and insurance for expanding companies at lower rates of interest than conventional terms allow - without cost or risk to the state's credit.

The following is a list of industrial revenue bonds approved by MIFA in the Springfield-Chicopee-Holyoke Labor Market Area during 1980.

Table 17
Bonds Approved by MIFA in Springfield-Chicopee-Holyoke LMA during 1980

Date	SIC Code	Industry Title	Name of Firm	Location	Estimated Jobs Created
1/3	3599	Nonelectrical Machinery	Advance Manufacturing Co., Inc.	Westfield	8
1/22	3541	Nonelectrical Machinery	Van Norman Machine Co.	Springfield	30
1/22	3423	Fabricated Metals	Hope Tool Inc.	Chicopee	16
2/7	2641	Paper	Jen-Coat, Inc.	Westfield	25
3/6	4832	Communications	WGBH Educational Foundation, Inc.	Springfield	4
3/6	3451	Fabricated Metals	Valley Machine Knife Corporation	W. Springfield	2
3/18	2295	Textiles	Texon, Inc.	Holyoke	20
3/18	3944	Games	Milton Bradley Company	E. Longmeadow	526
4/3	5331	Retail Trade	N-P Co./CVS Inc.	Springfield	10
4/3	2651	Paper	Laurino Packaging Company	W. Springfield	12
5/1	2211	Textiles	United Fabrication Div. of United Canvas, Inc.	Agawam	10
5/1	3823	Instruments	Tempo-Pro, Inc.	Northampton	10
5/1	2752	Printing	Professional Lithography, Inc.	S. Hadley	22
5/1	3545	Nonelectrical Machinery	Precision Products, Inc.	Springfield	40
5/1	2641	Paper	Hazen Paper Company	Holyoke	13
6/5	5211	Retail Trade	J. R. Kakley & Sons	Springfield	20
6/5	2421	Lumber	Peck Lumber Company	Westfield	3
6/5	346	Fabricated Metals	Burd Manufacturing Company, Inc.	E. Longmeadow	10
6/5	1711	Contract Construction	Berkshire Trane Air Conditioning Company	W. Springfield	9
6/5	3599	Nonelectrical Machinery	Micron Manufacturing Company, Inc.	Southwick	2
7/10	3423	Fabricated Metals	Springfield Tool, Inc.	Springfield	37
7/10	3429	Fabricated Metals	McGill Hose and Coupling	E. Longmeadow	4
8/7	3334	Primary Metals	Bay State Refining	Chicopee	47
8/7	3429	Fabricated Metals	Dual Manufacturing & Engineering Company	Holyoke	150

Table 17
Bonds Approved by MIFA in
Springfield-Chicopee-Holyoke LMA during 1980
(continued)

Date	SIC Code	Industry Tital	Name of Firm	Location	Estimated Jobs Created
8/7	505	Wholesale Trade	William F. Sullivan Company Inc.	Holyoke	8
8/7	3545-9	Nonelectrical Machinery	American Specialty Grinding Company Inc.	Chicopee	4
9/15	3679	Electrical Machinery	K & M Electronics	W. Springfield	100
11/13	3479	Fabricated Metals	Hayden Corporation	W. Springfield	6
11/13	5084	Wholesale Trade	The Colby Company	W. Springfield	10
11/13	5621	Retail Trade	Bobby Brooks Ltd.	Chicopee	40
11/13	3479	Fabricated Metals	Chemi Graphics Inc.	Ludlow	7
11/13	5023	Wholesale Trade	Holmar Districution, Inc.	Holyoke	23
11/13	3441	Fabricated Metals	Elwell Iron Works Inc.	Springfield	6
11/13	3545	Nonelectrical Machinery	PMA, Inc.	W. Springfield	15
11/13	3443	Fabricated Metals	Kimball Company of New England	E. Longmeadow	47
12/4	3421	Fabricated Metals	Oxford Precision, Inc.	Agawam	35
12/4	3452	Fabricated Metals	Specialty Bold & Screw, Inc.	W. Springfield	2

IV. Employment Developments and Outlook by Occupation
Occupational Requirements in the Springfield-Chicopee-Holyoke Labor Market Area 1976-1985

The total demand for workers during the 1976-1985 span of years is the sum of the demand arising from industry growth and that needed for replacement of workers who leave the labor force because of death, retirement or other separations from the labor force. The nine-year growth component will amount to approximately 27,510, while more than two times this number (58,700) will be needed as replacements. On the average, therefore approximately 12,320 additional workers will be required each year during this nine-year span.

Table 18

Estimated Annual Job Openings 1976-1985

	Demand	Due To Growth	Due To Separation
Total - All Occupations	12,316	3,930	8,386
Professional, Technical, Kindred	1,771	613	1,158
Mgrs., Officials, Proprietors	1,427	456	971
Sales Workers	900	241	659
Clerical & Kindred Workers	2,803	1,047	1,756
Craft Workers & Supervisors	1,224	416	808
Operatives & Kindred Workers	1,635	432	1,203
Service Workers	2,155	672	1,483
Laborers, Exec., Farm & Mine	346	98	248
Farmers & Farm Laborers	55	-45	100

Source: LMA Estimate Based on State Employment Requirements by Occupation, by Industry, an Occupation/Industry Research Department Publication. (See Table 19 for Occupational Breakdown).

Corresponding to state trends, the clerical division is expected to be the fastest growing group in the 1976-1985 span of years. Increased paper work will accompany the expansion of large and complex organizations, even though routine clerical work may be reduced through increased use of computer or other business machines. Job opportunities should be especially prominent for secretaries, clerk-typists, bookkeepers and cashiers. Individuals who can type and perform statistical/accounting calculations will be in demand.

Demand for workers in the service category should expand significantly into the 1980's. A rising demand for hospital and other medical care and the more frequent use of restaurants and other services will foster an increased need for service workers. As income levels rise within this area, job opportunities whould abound for nurses' aides and food service workers.

Job openings in the professional, managerial and sales division should expand moderately in the 1976-1985 period. Demand should be particularly strong for medical and health workers (especially registered nurses and therapists), engineers (electrical, in particular), electrical and electronics technicians, computer specialists, accountants, financial managers and insurance and real estate agents (if there is a breakthrough in the troubled housing industry).

Teachers are expected to face competition for jobs as the available supply of labor in this category continues to exceed demand. This condition will worsen as Proposition $2\frac{1}{2}$ goes into effect in July 1981. Some growth in employment of preschool teachers is expected as a result of the entrance of many a family's second wage earner into the workforce.

Since the manufacturing sector provides close to 29 percent of total non-agricultural jobs in the area, demand for operatives and kindred workers is expected to increase significantly during the first half of the 1980's. This is especially true with the plans of Wang Laboratory and Prime Computer to expand in this area (West Springfield and Holyoke in the near future).

The job picture in the crafts occupations should brighten over the next four years, except for construction workers who have been in a slump for five years now with little improvement in sight in the near future.

Table 19 Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Total-All Occupations (Nonagriculture 212,400, Farm. 2,800)	215,200	251,784	10,643	3,360	7,283
Professional, Technical, Kindred	38,172	43,899	1,771	613	1,158
Engineers, Technical	4,165	5,270	209	118	91
Engineers, Chemical	105	118	4	2	2
Engineers, Civil	454	528	23	8	15
Engineers, Electrical	1,384	1,874	73	52	21
Engineers, Industrial	774	966	39	21	17
Engineers, Mechanical	717	871	34	17	17
Life & Physical Scientists	693	802	29	7	22
Biological Scientists	144	176	7	3	4
Chemists	309	349	13	4	9
Mathematical Specialists	147	171	7	3	4
Engineers, Science Technicians	3,331	4,190	148	92	56
Chemical Technicians	177	198	6	2	4
Drafters	1,148	1,427	52	30	22
Electrical, Electronic Tech.	999	1,442	59	48	11
Engineering, Science Tech. NEC	708	740	16	3	13
Medical Workers, Exc. Technicians	6,343	7,772	379	154	225
Dentists	347	411	14	7	7
Dietitians	130	140	8	1	7
Pharmacists	434	450	24	2	22
Registered Nurses	3,631	4,389	228	81	147
Therapists	405	548	31	15	16
Veterinarians	67	78	3	1	2
Health Technol. and Tech.	1,389	1,857	104	50	54
Clinical Lab. Technol., Tech.	573	761	41	20	21
Dental Hygienists	133	273	24	15	9
Health Record Technol., Tech.	66	76	4	1	3
Radiologic Technol., Tech.	249	332	18	9	9
Technicians, Exc. Health	370	468	20	11	9
Computer Specialists	1.328	1,725	61	43	18
Computer Programmers	801	999	32	21	11
Computer Systems Analysts	453	625	24	18	6
Social Scientists	591	703	25	12	13
Teachers	8,989	8,547	189	-79	239
College & University Teachers	1,752	1,519	68	34	34
Elementary School Teachers	3,211	2,981	68	34	32
Preschool, Kindergarten	575	700	33	13	10
Secondary School Teachers	2,646	2,409	29	-59	88
Teachers NEC, Exc. College University	632	721	44	9	35
Writers, Artist, Entertainers	2,828	3,213	141	39	102
Athletics & Kindred Workers	237	282	12	5	7
Designers	431	484	18	6	12
Editors & Reporters	522	597	29	8	21
Musicians & Composers	349	419	25	8	17
Painters & Sculpters	380	420	20	3	17
Photographers	196	209	7	2	5
Public Relations Specialists	251	306	14	6	8
Radio, TV Announcers	52	67	3	2	1
Writers, Artists Entertainers NEC	253	279	10	3	7

Table 9 Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Other Professional, Technical	7,979	9,183	382	129	153
Accountants	2,367	2,717	131	38	93
Clergy	518	570	36	6	30
Lawyers	1,050	1,182	84	14	70
Librarians	463	436	16	3	13
Operations, Systems Research	298	381	14	9	5
Personnel Labor Relations	718	825	32	12	20
Research Workers, NEC	447	456	13	1	12
Recreation Workers	341	399	19	8	11
Social Workers	839	1,038	58	22	36
Vocational Ed. Counselors	424	457	15	4	11
Managers Officials, Proprietors	22,884	27,119	1,427	456	971
Buyers, Sales, Loan Managers	4,076	5,267	276	128	148
Banks, Financial Managers	1,231	1,494	73	29	44
Credit Managers	149	164	9	2	7
Buyers, Wholesale, Retail	454	649	45	21	24
Purchasing Agents, Buyers NEC	500	701	42	22	20
Sales Mgrs. Retail Trade	890	1,127	54	25	29
Sales Mgr. Exc. Retail Trade	824	1,095	52	29	23
Administrators, Pub. Inspectors	2,214	2,541	141	35	106
Health Administrators	511	634	42	13	29
Inspectors, Exc. Construct Pub.	200	233	12	3	9
Officials Admins. Pub.	530	608	36	8	26
Postmasters & Mail Supervisor	58	53	3	-1	4
School Admins. College	169	160	4	2	2
School Admins. Elementary, Secondary	648	726	31	8	23
Other Managers, Officials, Prop.	16,595	19,311	1,011	293	718
Mgrs. Super. Bldg.	218	290	26	8	16
Office Managers NEC	828	1,072	51	26	25
Restaurant, Cafe, Bar Mgrs.	1,244	1,373	61	14	47
Other Mgrs. Admins.	13,775	15,979	827	237	590
Sales Workers	13,527	15,763	900	241	659
Advertising Agents, Sales Works	183	230	14	5	9
Demonstrators	121	162	10	4	6
Insurance Agents, Brokers, Etc.	1,273	1,418	64	16	48
Real Estate Agents, Brokers	1,019	1,279	94	28	66
Sales & Sales Workers NEC	10,259	11,969	690	185	505
Clerical Workers	41,233	50,596	2,803	1,047	1,756
Stenographers, Typists, Secr.	12,082	15,600	946	378	568
Secretaries, Legal	366	544	39	19	20
Secretaries, Medical	530	886	64	38	26
Secretaries, Other	8,107	10,783	678	286	392
Stenographers	164	116	2	2	4
Typists	2,915	3,272	164	39	125
Office Machine Operators	2,217	2,279	58	7	51
Bookkeeping, Billing Operators	113	129	6	2	4
Calculating Machine Operators	77	88	5	1	4
Computer, Peripheral Equip.	849	934	20	9	11
Keypunch Operators	905	874	19	-4	23
Other Clerical Workers	26,934	29,602	1,798	663	1,135
Bank Tellers	946	1,048	39	8	31
Billing Clerks	445	633	41	20	21
Bookkeepers	4,224	4,604	255	41	214

Table 19 Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Cashiers	3,187	4,006	215	88	127
Clerical Supervisors NEC	550	652	32	11	21
Collectors, Bills, Acct.	118	126	6	1	5
Counter Clerks, Exc, Food	800	968	56	18	38
Estimators, Investigators NEC	1,036	1,132	53	28	25
Expeditors, Prod. Controllers	649	912	49	9	40
File Clerks	785	868	40	9	31
Insurance Adjust. Examiners	509	584	22	8	14
Library Attendants, Assist.	450	471	21	3	18
Mail Carriers, P. O.	682	677	14	0	14
Mail Handlers, Exc. P. O.	426	495	24	8	16
Messenger & Office Helpers	202	195	14	1	13
Payroll, Time Keeping Clerks	597	669	35	8	25
Postal Clerks	799	705	13	10	3
Receptionists	977	1,219	79	26	53
Shipping, Rec. Clerks	1,559	1,798	78	26	52
Statistical Clerks	775	892	48	13	35
Stock Clerks, Store Keepers	1,263	1,491	70	24	46
Teachers Aides, Exc. Monitors	410	617	31	22	9
Telephone Operators	1,087	1,045	10	-10	20
Misc. Clerical Workers NEC	3,502	6,181	463	286	177
Crafts & Kindred Workers	25,451	29,311	1,224	416	808
Construction Crafts Workers	6,367	7,971	385	172	213
Carpenters & Apprentices	2,052	2,488	119	47	72
Brick & Stonemasons & Apprs.	302	347	45	5	40
Bulldozer Operators	122	177	9	6	3
Cement & Concrete Finishers	69	108	5	4	1
Electricians and Apprs.	1;163	1,397	55	25	20
Excavating, Grading Mach. Operators	328	446	19	12	7
Floor Layers, Exc. Tile Setters	34	41	2	1	1
Painters and Apprentices	930	1,134	67	23	44
Paperhangers	53	75	6	3	3
Plasterers & Apprentices	47	49	2	1	1
Plumbers, Fitters & Apprentices	869	1,149	63	30	33
Roofers and Slaters	176	245	12	8	4
Structural Metal Craft Workers	141	214	11	8	3
Tilesetters	82	95	3	2	1
Blue Collar Workers, Supv. NEC	3,818	4,403	191	65	126
Metalworking Craft Workers Exc. NEC	3,228	3,580	145	38	107
Forge and Hammer Operators	71	81	3	1	2
Job & Die Setters, Metal	199	245	12	5	7
Millwrights	143	135	3	0	3
Molders, Metal & Apprentices	141	128	4	1	3
Pattern & Model Makers	109	113	5	1	4
Sheetmetal Workers & Apprentices	357	399	14	5	9
Tool & Diemakers & Apprentices	567	647	29	8	21
Mechanics, Repairers, Installers	6,374	7,464	277	117	160
Air. Cond. Heating, Refrig. Mechanics	494	726	38	25	13
Auto Body Repairs	473	501	10	3	7
Auto Mechanics & Apprs.	2,131	2,330	69	22	47
Data Processing Mach. Repairs	142	274	16	14	2
Heavy Equip. Mech. Inc. Diesel	1,648	1,822	66	19	47
Household Appliance Mech.	302	335	11	3	8
Office Mach. Repairers	122	182	9	9	0
Radio, T. V. Repairers	257	354	18	2	16
Other Mechanics & Apprentices	536	602	24	8	16

Table 19 Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupation
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Printing Trade Crafts Workers	1,341	1,294	38	-5	43
Bookbinding	121	119	5	.1	4
Compositors & Typesetters	497	419	9	-.8	17
Photo Engravers, Lithographers	145	166	7	3	4
Printing Press Operators & Apprs.	510	526	16	2	14
Transportation, Public Utilities Crafts	1,152	1,273	27	14	13
Electric Power Line Installations Repairs	237	268	7	3	4
Locomotive Engineers	32	45	3	2	1
Telephone Installers Repairers	704	792	16	9	7
Telephone Line Installs.. Splicers	129	129	1	0	1
Other Crafts, Kindred Workers	3,169	3,301	160	15	99
Bakers	384	379	15	-1	16
Cabinetmakers	144	129	3	-2	5
Carpet Installers	115	129	3	2	1
Crane, Derrick & Hoist Operators	214	259	11	3	8
Decorators, Window Dressers	240	270	14	0	14
Dental Lab. Technicians	97	110	6	2	4
Jewelers & Watchmakers	104	116	10	2	8
Motion Picture Projectionists	31	32	4	1	3
Opticians, Lens Grinder, Polishers	172	267	17	10	7
Sign Painters	60	65	5	1	4
Stationary Engineers	346	321	13	-3	16
Tailors	200	179	12	-3	15
Upholsterers	120	111	5	-1	6
Crafts, Kindred NEC	345	307	10	-5	15
Operatives	33,216	37,234	1,635	432	1,203
Operatives. Exc. Transport	26,192	29,410	1,363	348	1,015
Semiskilled Metalworking	2,644	2,935	112	32	80
Drill Press Operators	192	186	5	-1	6
Furnace Tenders	73	89	5	2	3
Grinding Machine Operators	376	372	12	-1	11
Lathe, Mill Mach. Operators	267	337	6	6	0
Metal Platers	157	171	7	2	5
Other Precision Mach. Operators	157	236	14	8	6
Punch Stamp Precs. Operators	249	277	12	3	9
Solderers	256	206	2	-5	7
Welders & Flame Cutters	909	1,089	38	16	22
Semiskilled Textiles	833	689	18	-15	34
Knitters, Loopers, & Toppers	70	60	1	-1	2
Spinners, Twisters, Winders	181	170	8	-1	9
Weavers	59	46	2	-1	3
Other Textile Operators	497	399	8	-10	18
Semiskilled Packing Inspecting	4,405	5,461	299	113	186
Checkers, Examiners, Etc. Mfg.	1,996	2,613	153	66	87
Graders & Sorters, Mfg.	101	89	4	-1	5
Meat Wrappers, Retail Trade	263	293	12	3	9
Packer, Wrapper, Exc. Meat, Prod.	2,022	2,439	128	44	84
Other Operatives, Exc. Transport	18,793	21,131	971	254	717
Insulation Workers	56	93	5	4	1
Assemblers	3,085	4,231	248	123	126
Bottling, Canning Operators	75	76	3	1	2
Clothing Ironers & Pressers	343	309	10	-4	14
Cutting Operators NEC	681	749	36	8	28
Dressmakers Exc. Factory	247	207	12	-5	17
Dry Wall Install. Lathes	72	110	5	4	1
Dyers	149	164	6	2	4
Filer, Polishers, Sander Buffer	372	388	16	2	14
Garage Workers, Gas Station Attendants	832	850	17	3	14
Laundry, Dry Cleaning Opers. NEC	393	469	30	8	22
Meat Cutters, Butchers, Exc. Mfg.	640	590	12	14	26

Table G Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985 Number	Openings Due To Growth	Openings Due To Separations
Meat Cutters, Butchers	65	66	3	0	3
Milleners	9	7	1	0	1
Mixing Oprs.	191	179	3	- 2	5
Oilers, Greasers, Exc. Auto	72	64	2	0	3
Painters, Mfg. Articles	267	372	21	11	10
Photographers Process Workers	271	380	22	12	10
Riveters and Fasteners	82	88	4	1	3
Sawyers	126	146	10	3	7
Sewers and Stitchers	2,379	2,459	125	9	116
Furnace Tenders, Stokers Exc. Metal	190	184	6	-1	7
Winding Oprs. NEC	323	439	24	13	11
Misc. Machine Operators	4,148	4,503	176	39	137
Operatives NEC	3,155	3,539	146	42	104
Transport Equip. Operatives	6,540	7,018	236	52	184
Bus Drivers	854	811	29	- 5	34
Delivery & Route Workers	1,554	1,729	57	19	38
Fork Lift, Tow Motor Operators	482	575	20	10	10
R. R. Brake Operators	46	57	3	1	2
Taxi Drivers, Chauffeurs	699	667	28	- 4	32
Truck Drivers	2,708	2,979	88	29	59
Service Workers	30,037	36,293	2,155	672	1,483
Cleaning Service Workers	5,498	6,449	482	102	380
Lodging Quarters Cleaners Exec. P. R.	362	636	61	29	32
Bldg. Int. Cleaners, NEC	1,921	2,320	182	43	139
Janitors and Sextons	3,261	3,492	239	30	209
Food Service Workers	10,424	12,791	685	253	399
bartenders	671	786	50	13	37
Waiters' Assts.	395	525	21	14	7
Cooks, Exc. Private	2,105	2,629	152	56	96
Dishwashers	689	804	40	39	1
Food Counter, Fountain Workers	1,791	2,405	146	65	81
Waiters	3,504	4,098	188	64	124
Food Workers, NEC, Exc. Private	1,268	1,543	89	29	60
Health Service Workers	5,607	7,285	436	180	256
Dental Assistants	371	530	33	17	16
Health Aides, Exec. Nursing	621	961	71	2	69
Health Trainees	79	24	- 1	- 4	3
Nurses Aides, Orderlies	2,709	3,283	167	61	106
Practical Nurses	1,825	2,486	168	70	98
Personal Services Workers	3,244	3,747	228	55	173
Atten. Recreation Amusements	162	173	10	1	9
Atten. Personal Service NEC	187	208	16	3	13
Barbers	314	305	18	-1	19
Boarding, Lodging, Housekeepers	70	77	10	1	9
Child Care Workers Exc. Private	343	708	71	39	32
Elevator Operators	90	61	4	0	4
Hairdressers, Cosmetologists	1,258	1,240	45	- 2	47
Housekeeper Exec. Private	326	354	21	3	18
School Monitors	116	142	5	3	2
Welfare Service Aides	169	216	14	5	9

Table 19 Springfield-Chicopee-Holyoke Labor Market Area
Projections of Employment by Occupations
Continued

Occupational Categories and Selected Occupations	1976 Employment Number	Projected 1985 Employment Number	Average Annual Job Openings, 1976-1985		
			Number	Openings Due To Growth	Openings Due To Separations
Protective & Service Workers	4,243	5,307	290	126	174
Crossing Guard, Bridgetenders	148	186	17	4	13
Firefighters	1,161	1,436	47	30	17
Guards	1,306	1,491	128	98	30
Police and Detectives	1,566	2,118	90	61	29
Sheriffs and Bailiffs	58	73	8	2	6
Private Household Workers	1,021	715	35	-34	69
Child Care Workers	358	251	4	-13	17
Housekeepers Private	168	96	4	-8	12
Private Household Cleaners, Service	456	336	22	-14	36
Laborers, Exc. Farm	8,640	9,546	346	98	248
Animal Caretakers, Exc. Farms	289	375	22	10	12
Carpenters, Helpers	161	194	6	3	3
Constr. Laborers, Exc. Carp. Helpers	1,246	1,493	53	28	25
Freight Material Handlers	1,270	1,405	46	12	32
Garbage Collectors	169	247	13	9	4
Gardeners, Groundkeepers Exc. Farm	1,059	1,186	75	13	62
Stock Handlers	2,544	2,496	65	24	41
Vehicle Washers, Equip. Cleaners	457	456	13	0	13
Warehouse Laborers, NEC	283	285	7	0	7
Other Laborers	1,018	1,056	41	4	37
Farmers and Farm Workers	2,042	1,631	55	-45	100
Farmers and Farm Managers	807	673	39	-15	54
Farm Laborers Farm Supv.	1,235	960	16	-30	46
Farm Labor Supervisors	60	60	3	-1	4
Farm Labor Wage Workers	860	566	13	-41	28
Farm Labor Unpaid Family	312	330	16	1	15

A. Recent Trends in Occupational Demand

The Springfield-Chicopee-Holyoke LMA did not feel the effect of the recent recession until the beginning of 1981. However, as early as November 1980, local Job Matching Centers could see a definite decline in job orders and this continued to the present time. A review of the Employment Service Automated Reporting System for March 1981 (See ESARS Table 96 in Appendix) shows some demand still exists for workers in the health services industry, especially general duty nurses, nurse aides, psychiatric aides, therapists and hospital housekeeping help. There is still a demand for machinists and machine operators; however, these are usually workers with specific skills and these jobs are quickly filled. In the health and machine related industries ESAR's currently shows a surplus of applicants. Nevertheless, job matching in these particular occupations may be difficult due to specialized skill requirements or commuting or possibly wage problems.

March 1980 and 1981 ESAR's showed a growing surplus in such highly skilled occupations as electronics engineers, civil engineers, mechanical engineers, programers, chemists, educational psychologists, medical assistants, teachers, educational therapists and accountants, plus a varity of office and retail trade help.

Due to the depressed condition of the housing industry, which began in 1975 and still persists, there is a surplus of construction workers.

B. Occupations of Employed Persons by Sex and Minority Status

Table 3A (Page 84 in Appendix) shows a percent distribution of occupations of employed persons, by sex and minority status in the Springfield-Chicopee-Holyoke Labor Market Area in 1979.

C. Job Openings Received and Filled by Occupational Category and Hourly Wage Rates March 1981

ESARS Table B07 for March 1981 on page 85 in the Appendix is a summary of job openings received and filled by occupational category and hourly wage rates for the first six months of Fiscal Year 1981.

Surprisingly, 62 percent of the job openings and 68 percent of the jobs filled were at an hourly wage rate of less than $4.00. Only professional, technical and managerial jobs averaged a bit over $6.00 an hour.

D. Job Placement Data by Industry and Occupational Category

Table 10, on page 80 of the Appendix, provides a list of job openings received and filled at the Springfield-Chicopee-Holyoke Labor Market Area Job Matching Centers. Openings received between October 1, 1980 and March 31, 1981 are listed by industrial division and occupational category. The wholesale and retail trade sector provided 31.4 percent of the total openings received while manufacturing industries accounted for 24.6 percent and services industries supplied 24.2 percent of the openings.

Table 5, on page 82 of the Appendix, provides a percent distribution of openings received during March 1981 for selected industry groups. The manufacturing sector provided the largest number of openings in March with 24.56 percent, followed by the services industry with 24.41 percent. This table also provides a percentage distribution of openings that remained unfilled.

E. Index of High Demand Occupations by Major Occupational Clusters in Massachusetts 1981

1. Professional and Technical

A. Engineers

Electrical Engineers
Industrial Engineers
Mechanical Engineers
Drafters

B. Health

Registered Nurses
Clinical Lab Technicians
Dental Hygienists
Radiological Technologists
Therapists

C. Other Technical

- Electronic Technicians
- Computer Programmers
- Computer Systems Analysts
- Computer Service Technologists

D. Other Professionals, Managers and Proprietors

- Personnel and Labor Relations
- Bank, Financial Managers
- Buyers, Wholesale and Retail
- Purchasing Agents
- Health Administrators
- Managers, Superintendents of Buildings
- Real Estate Agents, Brokers

2. Clerical Occupations

- Legal Secretaries
- Medical Secretaries
- Other Secretaries
- Bookkeepers
- Expeditors, Production Controllers
- Insurance Adjusters, Examiners
- Receptionists
- Shipping and Receiving Clerks

3. Craft Workers

- Carpenters and Apprentices
- Electricians and Apprentices
- Painters and Apprentices
- Plumbers and Pipefitters
- Excavating and Grading Machine Operators
- Heavy Equipment Mechanics
- Air Conditioning, Heating and Refrigeration Mechanics
- Machinists
- Tool and Die Makers
- Radio and Television Repairers
- Opticians and Lens Grinders

4. Operatives

- Assemblers
- Photographic Process Repairers
- Fork Lift Operatives
- Truck Drivers
- Lathe Machine Operatives

5. Service Workers

- Cooks
- Waitresses and Waiters
- Dental Assistants
- Health Aides
- Practical Nurses
- Child Care Workers

Source: "High Demand Occupations in Massachusetts 1981" by the Commonwealth of Massachusetts, Department of Manpower Development, Division of Employment Security

G. Index of High Demand Occupations by Major Occupational Clusters in the Springfield-Chicopee-Holyoke LMA 1981

1. Professional and Technical

A. Engineers

- Electrical Engineers
- Industrial Engineers
- Mechanical Engineers
- Drafters

B. Health

- Registered Nurses
- Clincial Lab Technicians
- Dental Hygienists
- Radiological Technologists
- Therapists.

C. Other Technical

Electronic Technicians
Computer Programmers
Computer Systems Analysts
Computer Service Technologists

D. Other Professionals, Managers and Proprietors

Health Administrators

2. Craft Workers

Machinists
Tool and Die Makers

3. Operatives

Assemblers
Lathe Machine Operatives

4. Service Workers

Practical Nurses

F. Employment Service Job Bank Openings and Average Pay in the Springfield-Chicopee-Holyoke LMA Compared with the State and Other Areas

Table 7 on page 89 in the appendix shows a comparison of Job Bank Openings and average pay in each of the labor market areas with that of the state in April 1981. Wages in the Springfield-Chicopee-Holyoke LMA averaged close to that of the state as a whole.

G. The Effect of Business Cycles on Employment in Various Industries

Table 22 is a comprehensive review of employment in various manufacturing and nonmanufacturing industries in the labor market area, classifying each industrial category as it is affected by the business cycle. The industries are classified as recession resistant, recession resilient or declining. The years 1974 through 1977 were used to observe employment during the year just prior to the 1975 recession, the year of recession, and the following two years of recovery. This table can be of help to school programmers and placement counselors in guiding graduates or anyone in search of a job concerning industries which might supply the greatest security.

V. Recent Unemployment Trends and Projections

The beginning of recovery from the 1975 recession was first observed in the Springfield-Chicopee-Holyoke Labor Market Area in the fall of 1975. From that time on, the rate of unemployment declined, except for seasonal changes, right up to the end of 1980. The number of unemployed also declined, rather consistently, during this period. Trends in unemployment rates showed this area recovering slightly faster than the state, early in 1976, and slightly faster than the nation, by the end of 1977. Rapid recovery in this labor market area can be attributed to its excellent industrial base and diversification within each industry Furthermore, the combined effort of the public and private sectors to hold on to existing manufacturing industries in recent years appears to have paid off.

The current recession, which started during the second quarter of 1980, did not affect this labor market area until January 1981. However, during the second half of fiscal year 1981 employment should decline due to legislated cuts in state and local government because of Proposition 2½. The spinoff from these reductions in government personnel will largely affect the wholesale and retail trade industry, where employment should also decline. This situation will worsen further in October, the beginning of the federal fiscal year, with cutbacks in federal agency staffing already in the proposed federal budget. The rate of unemployment could conceivably reach an average of 6.4 percent in Fiscal Year 1981 and 6.6 percent in Fiscal Year 1982.

Table 20

The Effect of Business Cycles on Employment in Various Industries

Sic Code	Industry Manufacturing	Classification	Employment by Place of Work 1974	1975	1976	1977
	FOOD					
202	Dairy Products	R	918	999	1,113	1,035
205	Bakery Products	R	698	220	709	614
208	Beverages	RS	427	254	204	199
	TEXTILES					
222	Synthetics	RS	150	21	24	207
225	Knitting Goods	D	445	385	327	255
229	Misc. Textiles	RS	861	696	747	786
	APPAREL					
233	Womens' & Girls' Outerwear	RS	612	547	479	516
234	Womens' & Girls' Underwear	RS	411	393	805	843
238	Misc. - Raincoats etc.	RS	369	355	368	365
239	Misc. Fab. Prods. (Curtains)	D	1,185	1,245	1,236	1,000
	WOOD					
244	Containers	R	74	123	127	136
249	Misc. Wood Products	D	676	410	384	416
	FURNITURE					
251	Furniture & Fixtures	D	295	235	256	240
254	Partitions, Shelving etc.	R	93	114	114	138
	PAPER					
264	Converted Paper	RS	4,491	3,917	4,181	4,438
265	Boxes	R	1,339	1,377	1,510	1,520
	PRINTING					
271	Newspaper	R	1,456	1,420	1,501	1,481
273	Book Printing	D	169	131	127	126
275	Commercial Printing	RS	1,245	1,142	1,207	1,188
278	Blankbooks	RS	2,164	1,902	2,071	2,018
	SYNTHETIC					
282	Plastics, Synthetics	RS	2,850	2,401	2,462	2,745
284	Soap & Detergents	R	1,005	1,031	1,014	974
	RUBBER, PLASTIC PRODUCTS					
301	Tires	D	1,977	1,699	1,490	1,733
307	Misc. Plastic Products	R	1,433	1,506	1,636	1,652
317	Handbags & Wallets	RS	1,050	891	1,006	857

SOURCE: - DES, 202 Reports

CLASSIFICATION CODE
R - Resistant
RS- Resilient
D - Declining

Table 20 (Con't.)
Page 2
The Effect of Business Cycles on Employment in Various Industries

Sic. Code	Industry Manufacturing	Classification	Employment by Place of Work 1974	1975	1976	1977
	ABRASIVES					
327	Concrete, Plastic Resin	RS	237	239	184	193
329	Abrasives	RS	385	239	366	360
	PRIMARY METALS					
331	Blast Furnaces	D	298	272	262	233
332	Iron & Steel Foundry	RS	692	420	564	555
336	Roll Draw & Extruded Metals	RS	258	269	246	253
	FABRICATED METALS					
341	Metal Cans & Containers	RS	-	237	216	287
342	Hand Tools	RS	1,896	1,799	1,881	2,070
344	Fabricated Structural Metals	RS	903	661	844	888
345	Screw Machine Products	RS	192	157	174	197
346	Forging	RS	423	1,528	1,533	1,488
347	Coating & Engraving	RS	743	602	674	758
348	Ordnance	R	499	2,824	2,950	3,110
349	Misc. Products	RS	969	952	933	944
	NONELECTRICAL MACHINERY					
354	Metal Working Machinery	RS	1,727	1,365	1,332	1,524
355	Special Machinery	RS	1,508	1,470	1,665	1,696
356	General Industrial Machinery	D	2,641	2,242	1,807	1,779
357	Office & Computer Equip.	R	21	1,480	1,794	2,091
359	Misc. Machinery	D	1,354	1,414	1,381	894
	ELECTRICAL MACHINERY					
363	Household Appliances	RS	10	11	293	260
364	Electrical Lighting	RS	137	425	397	340
366	Communication Equipment	D*	51	300	235	225
367	Electronic Components	RS	1,985	826	1,106	1,611
	TRANSPORTATION EQUIP.					
371	Motor Vehicle Parts	RS	1,290	1,210	1,231	1,444
372	Aircraft Parts	RS	240	134	112	202
375	Bikes & Parts	RS	882	412	524	605
	INSTRUMENTS & PHOTOGRAPHER EQUIP.					
383	Optical, Instruments & Parts	RS	424	423	427	444
386	Photographic Equip. & Parts	RS	392	456	302	313
	GAMES, ATHLETIC EQUIP. ETC.					
394	Toys, Games, Athletic Goods	RS	4,306	3,820	3,876	3,865
399	Misc. Mfgd. Products	RS	2,143	1,727	1,836	1,880

*Automation - Capital Intensive Industry

Table 20 (Con't)
Page 3
The Effect of Business Cycles on Employment in Various Industries

Sic. Code	Industry Manufacturing	Classification	Employment by Place of Work 1974	1975	1976	1977
	CONTRACT CONSTRUCTION					
152	General Contractor Single Homes	D	2,345	984	572	618
161	Highway Street Construction	D	459	338	277	287
171	Plumbing, Heating & Air Cond.	RS	974	810	770	761
172	Painting & Paper Hanging	D	325	256	239	218
173	Electrical Work	D	934	783	606	574
174	Masonry, Tile Work, Plastering	RS	509	609	517	563
175	Carpentry & Flooring	D	266	179	161	158
176	Roofing	RS	378	338	334	351
	TRANSPORTATION, COMMUNICATIONS & UTILITIES					
411	Local Passenger Transportation	RS	197	512	565	488
412	Taxicabs	RS	234	251	230	230
413	Intercity Rural Passenger Transp.	D	328	298	297	275
415	School Buses	R	407	551	606	732
421	Trucking	RS	2,271	2,039	2,160	2,373
471	Freight Forwarding	D	125	118	38	8
472	Arrangements for Transportation *	RS	199	207	206	228
481	Telephone Communications	RS	2,523	2,297	2,204	2,177
483	Radio & TV Broadcasting *	RS	331	328	349	401
491	Electric Services	RS	944	869	838	878
492	Gas Production & Distribution	R	182	419	434	441
	TRADE					
501	Auto Parts	RS	730	847	811	819
502	Furniture & Home Furnishings	RS	811	114	138	158
506	Electrical Goods	R	326	339	361	387
507	Hdw., Plumb. & Heat. Supplies & Equip.	R	727	912	946	922
508	Machinery, Equip. & Supplies (ex. Comp.)	R	1,355	1,372	1,421	1,541
509	Misc. Dur. Goods & Jewelry Scrap	RS	3,107	298	281	335
521	Lumber & Bldg. Material	RS	802	657	656	677
523	Paint, Glass & Wallpaper	R	114	141	144	141
525	Hardware Stores	RS	448	293	288	303
531	Department Stores	D	5,572	4,967	4,759	4,401
554	Gas Stations (serv.)	RS	1,572	1,769	1,521	1,655
581	Eating & Drinking Places	RS	11,467	9,834	9,929	10,304
591	Drug Stores	RS	1,342	1,356	1,381	1,315
592	Liquor Stores	D	964	943	931	908
	FINANCE, INSURANCE, REAL ESTATE					
602	Commercial Banks	RS	2,290	2,368	2,292	2,240
603	Mutual Savings Banks	R	1,034	1,112	1,210	1,287
631	Life Insurance	RS	3,176	3,666	3,752	3,222
632	Fire, Marine & Casualty Ins.	RS	1,130	447	325	443
641	Ins. Agents, Brokers, & Service	RS	839	852	842	862
651	Real Estate Operators	RS	476	477	460	481
653	Real Estate Agents & Mgrs.	RS	476	453	463	590
	SERVICES					
701	Hotels, Motels & Tourists Courts	RS	1,571	1,412	1,319	1,473
721	Personal Services - Laundry Etc.	RS	948	972	953	946
723	Beauty Shops	D	946	886	876	874
734	Services to Other Buildings	RS	1,317	1,263	1,321	1,365
739	Misc. Bus Services	RS	2,317	1,721	2,010	2,112
753	Automotive Repair Shops	R	923	954	981	983
799	Amusements & Recreations	RS	1,168	1,096	1,100	1,270
801	Offices of Physicians	R	1,338	1,444	1,499	1,500
802	Offices of Dentists	R	754	774	798	811
806	Hospitals	RS	8,444	9,878	7,481	8,529
809	Health & Allied Services	R	204	214	304	539
811	Legal Services	RS	723	693	711	749
822	Colleges, Universities, Prof Schools	RS	3,951	3,727	4,208	4,331
864	Civic, Social & Fraternal Associations	RS	1,235	1,149	1,230	1,072

Table 21

Seasonally Unadjusted Current Population Survey Estimates Labor Force, Employment and Unemployment Springfield-Chicopee-Holyoke LMA - Unemployment Rates Compared with Massachusetts and the United States

	(In 000's)			The Unemployment Rate		
Period	Labor Force	Employment	Unemployment	Springfield-Chicopee-Holyoke LMA	Mass.	U.S.
1975	265.2	235.1	30.1	11.3	11.2	8.5
1976	266.4	242.4	24.0	9.0	9.5	7.7
1977	272.0	252.7	19.3	7.1	8.1	7.0
1978	276.6	262.0	14.6	5.3	6.1	6.0
1979	273.8	260.6	13.2	4.8	5.5	5.8
1980	271.9	257.0	14.9	5.5	5.6	7.1
January	266.7	251.6	15.1	5.6	6.5	6.8
February	266.1	252.7	13.4	5.0	5.8	6.8
March	267.5	254.6	12.9	4.8	5.3	6.6
April	268.0	254.8	13.2	4.9	5.0	6.6
May	272.1	255.5	16.6	6.1	5.8	7.0
June	269.4	252.4	17.0	6.3	6.6	7.8
July	271.0	254.9	16.1	5.9	6.1	7.9
August	274.0	257.2	16.8	6.1	6.0	7.5
September	270.9	254.9	16.0	5.9	5.9	7.1
October	280.5	264.4	16.1	5.7	5.6	7.1
November	277.9	265.1	12.8	4.6	4.6	7.1
December	278.8	265.7	13.1	4.7	4.4	6.9
1981						
January	271.6	253.4	18.2	6.7	6.4	8.2
February	277.4	259.4	18.0	6.5	6.4	8.0
March	275.9	258.6	17.3	6.3	6.2	7.7
April	269.6	255.3	14.3	5.3	5.2	7.0

A. Characteristics of Insured Unemployed

Among the insured unemployed in March 1981 (See Tables 7 and 8), nonwhite and Spanish Surname individuals were located largely in Hampden County and mainly in Springfield and Holyoke.

Of the total nonagricultural wage and salary employment in Fiscal Years 1979 and 1980, 4.1 percent were estimated to be employed part-time for economic reasons. The same percent of the total nonagricultural employment is used to determine projected figures for those employed part-time for economic reasons for Fiscal Years 1981 and 1982. (Source: Employment and Earnings Report, Bureau of Labor Statistics, January 1981 - Table 35).

Of the 19,345 active applicants registered at the Job Matching Center in the Springfield-Chicopee-Holyoke LMA (March 1981), 59 percent were reported as economically disadvantaged (See Table 10). A significant 29.7 percent were nonwhite minority individuals and 13.7 percent were veterans. Close to 800 were considered as handicapped.

Firms wishing to expand in this labor market area in wholesale and retail trade or the hard goods producing industries should find a significant amount of help amongst the applicants registered at the Job Matching Centers. The last column of Table 11 shows a large ratio of active applicants to unfilled job openings in such occupational categories as clerical and sales, processing, machine trades, bench work and structural work.

B. Unemployment Concentrated Heavily in the Four Largest Cities

The combined laborforce of the four largest cities (Chicopee, Holyoke, Springfield and Westfield) made up 54.6 percent of the total labor force in this labor market area. All are located in Hampden County (See Table 5). In 1980, unemployment in these four cities averaged 62.1 percent of those unemployed in the total area. The largest number of minorities in need of help are located in these cities, especially Springfield and Holyoke (See Table 7).

Table 6 shows 1980 labor force annual average data in the four Job Matching Centers servicing the Springfield-Chicopee-Holyoke LMA.

C. Labor Turnover

When comparing labor turnover rates between January 1980 and January 1981 we notice that "assession rates" have increased; however, this is due more to an increase in "recalls" than in "new hires". As expected during a recessionary period, the rate of "quits" has dropped while that of "layoffs" has increased during this 12 month period. Increases in hiring were more in the soft goods producing sector.

D. Unemployment Insurance (UI) Claims Activity in the Springfield-Chicopee-Holyoke LMA

Reviewing UI claims going back 2½ years we see that claims have not fluctuated very much except for seasonal changes and just slightly for the current recession which began in the second quarter of 1980. (See Table 22). It should be noted that continued claims have been consistently dropping during the first five months of 1981.

Table 22

Unemployment Insurance (UI) Claims Activity
Springfield-Chicopee-Holyoke LMA

Date	UI Continued Claimants	UI Continued Claimants Less Earnings	UI Initial Claims
1979			
January	7,958	7,459	770
February	8,015	7,454	953
March	8,237	7,759	790
April	6,151	5,717	957
May	4,754	4,397	631
June	4,859	4,455	983
July	5,757	5,413	745
August	5,569	5,258	654
September	4,887	4,079	473
October	4,331	4,024	572
November	4,708	4,344	782
December	6,889	6,377	2,933
1980			
January	7,379	6,859	798
February	7,308	6,863	979
March	7,284	6,863	732
April	7,206	6,723	1,155
May	6,901	6,440	1,730
June	6,883	6,499	819
July	8,287	7,916	864
August	8,089	7,743	647
September	6,780	6,404	609
October	6,992	6,610	665
November	7,262	6,813	1,019
December	9,091	8,486	1,656
1981			
January	10,406	9,869	857
February	9,558	9,068	955
March	8,788	8,314	629
April	7,522	7,007	986
May	6,317	5,880	663

VI. Labor Supply-Demand Imbalances

Labor supply-demand imbalances are usually the result of many factors. This is especially true during a period of recession. The recent recession did not surface in the Springfield-Chicopee-Holyoke labor market area until the first quarter of 1981. In March 1981, the rate of unemployment was 6.3 percent up 1.5 percentage points over the year, and nonagricultural employment dropped by close to 4,000 jobs during the same period. The Employment Service Automated Reporting System (ESARS) showed 18,547 active applicants and 1,481 unfilled openings in file in this LMA's Job Matching Centers as of March 31, 1981 (See Table 96 in the Appendix). The applicant to job orders ratio is 12.5/1. This imbalance is brought about in many ways.

1. Many firms during economic slowdowns elect to use overtime to cut down on fringe benefits costs required if more workers were hired.
2. Rehiring is usually "recalls", many openings thus are not listed in DES active files.
3. Nonmanufacturing firms are constantly automating (wholesale and retail trade and finance, insurance, and real estate in particular), thereby cutting payrolls.
4. Applicants are often unable to meet skill requirements of job openings.
5. Many jobs offered are at entry level and the wages are lower than those to which experienced workers are accustomed.
6. Second and third shifts often present problems in terms of transportation and child care arrangements.
7. The DES Job Matching Centers usually receive about 10 percent of total job openings in an area.
8. If the economy worsens over the next 15 months the supply-demand imbalance will also worsen. Surpluses of teachers and public administrators are expected.

VII. Individuals in Need of Employment Services

Unemployment declined from an average of 27,800 in fiscal year 1975 (a recession year) to 14,400 in Fiscal Year 1980, but is expected to rise to 17,827 in Fiscal Year 1982. Because of the strong recovery from the 1975 recession, due to the excellent industrial base, the area did not do too badly in the recent recession, which began in the second quarter of 1980. In fact, this labor market area did not feel the effect of the current recession until the first quarter of 1981.

Tables 2 and 3 show the high rate of unemployment expected to occur amongst youth aged 16-24 in this area. Hardest hit will be black and Spanish speaking youths who would be adversely affected by any cutbacks in training programs. As an economy retrenches, employers cease new hires before they consider layoffs. Thus inexperienced youth are adversely effected.

Table 10 shows the characteristics of the applicants registered at the Job Matching Centers in the labor market area in March 1981. Those considered economically disadvantaged (11,343) made up 58.6 percent of the total active applicants (19,345). Nonwhite minority applicants (5,743) accounted for 51.0 percent of those considered economically disadvantaged.

Table 12 is a projection of economically disadvantaged 18 years and over in Hampden County FY 1982. Nonwhites (20,180) are expected to make up 36.8 percent of the total economically disadvantaged (54,807). Since economically disadvantaged are usually unskilled workers, and since unskilled workers make up a significant part of the total unemployed, training should be made available to those in need of skills.

VIII. Training Programs - March 1981

A. CETA

The Comprehensive Employment and Training Act of 1973 (CETA) was passed with the purpose of providing job training and employment opportunities for economically disadvantaged, unemployed and underemployed persons and to assure that training and other services lead to maximum employment opportunities. Under CETA the primary responsibility for manpower training is on the prime sponsors, cities with a population of 100,000 or more, and consortiums, groups of smaller cities and towns. The Hampden County Manpower Consortium in Springfield serves the Hampden County Area.

In Hampden County, the initial thrust of the CETA program was to address the problem of soaring minority joblessness. However, the 1975 economic recession aggravated the unemployment condition, and CETA was expanded to include semiskilled workers.

It has been estimated that the Hampden County Manpower Consortium will receive $3,825,067 in FY 1982. This is a drastic reduction in the amount received each year since the inception of this federally funded program, necessitating severe cuts in services provided by CETA in this area.

Table 23

Planned Contractor Obligations (CETA)

	Percent of Total Funding
Hampden County House of Correction	2.0
Hampden District Regional Skills Center (Training)	38.2
Division of Employment Security (Job Development)	2.1
Division of Employment Security (Allowances for Trainees)	37.1
CETA Centers (Administration)	6.9
Prine Sponsor (Administration)	11.3
Chamber of Commerce (PSIP) Prime Sector Initiative Program	2.4
TOTAL	100.0

B. The Work Incentive Program (WIN)

This program is administered by the Division of Employment Security with referrals by the Welfare Department. The program concentrates on welfare recipients covered by Aid to Families with Dependent Children (AFDC). The WIN program provides employment, training and social services to welfare clients, rather than a commitment to long term maintenance. Its goal is to move men, women and out-of-school youth, age 16 or older from the welfare rolls into meaningful, permanent, employment. The program is represented by two teams in Springfield and one in both Holyoke and Northampton. The accumulative record of these four teams is shown in the following table:

Table 24

WIN Team Data
Springfield-Holyoke-Northampton

	10/1/76 through 3/31/77	10/1/77 through 3/31/78	10/1/78 through 3/31/79	10/1/79 through 3/31/80	10/1/80 through 3/31/81
Registrants	13,174*	15,119*	15,380*	12,352	12,891
New Registrants	2,978	3,592	1,955	2,355	2,639
Appraisals	2,577	2,018	1,604	2,194	2,003
Institutional Training	107	76	72	74	65
Work Experience	37	63	20	17	32
Suspense	86	226	154	143	174
On-The-Job-Training	34	67	45	58	77
Entered Unsubsidized Employment Expected to Last 30 Days or More	474	539	802	810	841

* Includes carry-over from prior fiscal year

Note; A change in the definition of "Institutional Training" has resulted in a lesser number reported in that component.

C. Apprenticeship

Apprenticeship is a training system through which a person learns a skilled trade on the job under an experienced craft worker with related classroom instruction. The training period runs from one to six years for different skills; most require four years. Apprenticeship Information Centers provide information, guidance, and counseling to applicants regarding apprenticeship opportunities, with special emphasis placed on assisting minorities, youth, women, and veterans.

D. List of Vocational-Technical Schools in the Springfield-Chicopee-Holyoke LMA

Hampden District Regional Skilled Centers
Springfield and Holyoke

Roger L. Putnam Vocational Technical High School
Springfield

Westfield Vocational High School
Westfield

Dean Vocational-Technical High School
Holyoke

Chicopee Comprehensive High School-Vocational Division
Chicopee

Holyoke High School - Business Department
Holyoke

Chicopee High School-Business Department
Chicopee

High School of Commerce
Springfield

E. Community Colleges in the Springfield-Chicopee-Holyoke LMA

Holyoke Community College
Holyoke

Springfield Technical Community College
Springfield

APPENDIX

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS UNDER 22	AGE GROUPS 45 AND OLDER	MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN TOTAL	UNFILLED OPEN 30 DAY OR MOR
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	TOTAL	32327	16547	10155	2641	2534	3279	5272	11263	5105	2351	2966	1481	88
96	0-1	3821	1855	880	399	59	352	285	667	621	289	120	287	15
96	000-169	2536	1202	603	226	35	204	176	452	440	247	82	223	14
96	180-199	1285	653	277	173	24	148	109	215	181	42	38	64	1
96	2	6400	3169	2469	311	461	504	599	1800	1550	829	935	161	9
96	200-249	4839	2556	2131	214	349	405	519	1509	1004	550	621	116	6
96	250-299	1561	613	338	97	112	99	80	291	546	279	314	45	2
96	3	5955	3586	2748	199	598	541	1277	2809	1116	353	727	595	39
96	300-309	749	598	585	0	59	122	357	571	46	11	14	25	1
96	310-319	2420	1222	875	80	277	141	202	859	650	187	458	212	10
96	320-389	2786	1766	1288	119	262	278	718	1379	420	155	255	358	27
96	4	719	432	95	32	143	44	247	239	146	100	43	104	9
96	400-429	669	411	94	28	137	43	244	223	141	95	38	104	9
96	440-449	3	2	0	0	1	0	1	1	0	0	0	0	
96	450-461	47	19	1	4	5	1	2	15	5	5	5	0	
96	5	821	492	98	139	47	127	138	180	199	129	93	26	1
96	6	2876	1487	392	369	163	234	312	678	392	203	301	47	2
96	7	2421	1518	884	237	127	383	492	702	270	133	187	54	3
96	8	2215	1179	71	378	186	203	209	460	266	38	172	57	1
96	800-859	888	466	49	165	70	78	99	173	118	18	71	31	
96	860-899	1327	713	22	213	116	125	110	287	148	20	101	26	1
96	9	4310	2439	805	435	640	318	613	1361	542	276	385	134	2
96	900-919	1034	555	69	191	59	92	92	264	190	115	73	105	1
96	920-929	3040	1739	667	218	552	203	697	1020	297	146	283	21	1
96	930-979	236	145	69	26	29	23	24	77	55	15	29	8	
96	X-ENTRY TOTAL	180	166	148	1	24	22	101	164	0	0	0	0	
96	0-1	6	5	5	0	0	0	1	5	0	0	0	0	
96	2	30	29	28	0	6	3	16	29	0	0	0	0	
96	3	12	10	9	1	1	1	4	10	0	0	0	0	
96	6	1	1	0	0	0	0	0	1	0	0	0	0	
96	7	2	2	2	0	0	0	1	2	0	0	0	0	
96	8	2	1	0	0	0	0	1	1	0	0	0	0	
96	9	127	118	104	0	17	18	78	116	0	0	0	0	

TABLE 96 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE: TOTAL	ACTIVE FILE: FEMALE	ACTIVE FILE: VETERAN	ACTIVE FILE: AGE GROUPS: UNDER 22	ACTIVE FILE: AGE GROUPS: 45 AND OLDER	ACTIVE FILE: MINORITY	ACTIVE FILE: ECONOMICALLY DISADVANTAGED	NONAGRICULTURAL OPENINGS: TOTAL RECEIVED	NONAGRICULTURAL OPENINGS: OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	NONAGRICULTURAL OPENINGS: OPENING FILLED	NONAGRICULTURAL OPENINGS: UNFILLED OPEN: TOTAL	NONAGRICULTURAL OPENINGS: UNFILLED OPEN: 30 DAY OR MOR
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	001261-010	10	5	0	2	0	0	0	2	0	0	0	0	[illegible]
96	003061-010	8	6	0	3	0	4	0	1	3	2	1	1	[illegible]
96	003161-014	33	15	1	5	0	1	2	4	4	2	7	0	[illegible]
96	003281-010	1	0	0	0	0	0	0	0	0	0	0	0	[illegible]
96	005061-014	16	9	0	4	0	2	0	3	0	0	1	0	[illegible]
96	005281-014	2	0	0	0	0	0	0	0	0	0	0	0	[illegible]
96	007061-014	17	11	0	4	1	6	0	1	1	0	0	1	[illegible]
96	007161-026	4	1	0	1	0	1	0	0	2	1	0	1	[illegible]
96	008061-018	7	3	1	0	0	1	0	0	0	0	0	0	[illegible]
96	011261-010	1	0	0	0	0	0	0	0	0	0	0	0	[illegible]
96	012167-042	6	5	0	3	0	4	0	1	9	3	0	7	[illegible]
96	012167-066	11	7	1	2	0	3	0	1	5	4	0	2	[illegible]
96	012267-010	4	2	0	0	0	1	0	0	1	1	0	0	[illegible]
96	018167-010	1	1	0	0	0	0	0	0	0	0	0	0	0
96	020067-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	020162-014	23	10	3	3	0	2	0	2	6	4	2	1	[illegible]
96	020167-022	2	0	0	0	0	0	0	0	1	1	0	0	0
96	022061-010	17	12	2	2	0	3	1	4	1	0	0	0	0
96	022261-010	6	2	0	0	0	0	0	0	1	1	0	0	0
96	029261-010	6	1	1	0	0	1	0	0	0	0	0	0	0
96	040061-034	8	5	2	0	0	0	0	3	0	0	0	0	0
96	041061-030	7	3	0	0	0	0	0	0	0	0	0	0	0
96	045107-010	120	50	25	10	2	1	15	26	2	1	0	0	0
96	054067-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	073101-010	1	1	1	0	0	0	0	0	0	0	0	0	0
96	074161-010	7	4	1	0	0	1	0	0	2	0	0	0	0
96	075374-010	40	26	26	0	0	4	6	24	55	36	2	49	27
96	076121-010	2	1	1	0	0	0	0	0	1	1	0	0	0
96	076121-014	3	3	3	0	1	0	2	2	0	0	0	0	0
96	076364-010	1	1	1	0	0	0	0	1	0	0	0	0	0
96	077117-010	0	0	0	0	0	0	0	0	2	2	0	1	0
96	078361-010	10	6	6	0	0	1	1	1	0	0	0	0	0
96	078361-014	8	3	2	1	0	0	0	1	0	0	0	0	0
96	078381-014	13	9	8	0	1	0	1	5	2	1	0	1	1
96	079361-010	7	4	4	0	0	0	0	3	1	1	0	1	1
96	079367-010	27	16	12	4	0	1	1	13	1	0	1	0	0
96	079371-010	27	15	15	1	1	0	1	10	4	1	2	0	0
96	079374-014	49	33	32	1	0	2	7	30	21	8	1	44	35
96	079374-022	3	3	2	0	0	0	0	2	1	1	0	1	1
96	090227-010	81	36	16	4	0	11	7	16	18	12	0	11	9
96	091227-010	122	45	27	3	1	4	6	13	6	4	3	0	0
96	092227-010	114	45	36	1	0	3	4	22	0	0	5	0	0

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MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/81 PAGE 002

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS-TERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINOR-ITY	ECONOM-ICALLY DISAD-VANT-AGED	TOTAL RE-CEIVED	OPENING REC'D FEDERAL CON-TRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	100127-014	8	4	3	0	0	1	0	1	2	1	0	1	0
96	110107-010	15	6	3	1	1	0	1	3	1	0	1	0	0
96	131267-026	4	1	0	0	0	0	0	0	3	3	0	0	0
96	142061-018	2	2	2	0	0	0	1	2	0	0	0	0	0
96	159124-010	17	8	6	0	4	0	4	5	0	0	0	0	0
96	160162-014	4	2	0	0	0	0	0	0	2	1	0	0	0
96	160167-010	73	36	15	5	0	10	9	11	7	6	2	3	1
96	160267-018	5	1	0	1	0	1	0	0	2	0	0	0	0
96	162157-038	31	21	6	7	0	8	1	2	4	2	0	2	2
96	163167-014	1	1	0	1	0	0	0	0	0	0	0	0	0
96	163167-018	48	26	4	12	0	6	1	3	0	0	0	0	0
96	165067-010	32	11	3	3	0	2	1	2	1	1	0	0	0
96	166267-018	5	1	1	0	0	0	0	0	1	0	1	0	0
96	169167-010	145	59	37	9	0	10	9	16	10	5	3	0	0
96	169167-034	65	36	22	7	0	11	1	3	3	1	2	0	0
96	169167-058	10	8	5	0	0	1	2	2	1	1	0	0	0
96	182267-010	3	1	0	1	0	0	0	0	1	0	0	1	0
96	185167-014	14	3	1	0	1	0	0	2	3	3	1	0	0
96	185167-046	175	90	42	12	5	17	10	29	4	1	3	2	2
96	187167-030	1	1	0	0	0	0	0	0	0	0	0	0	0
96	187167-106	62	29	9	9	1	8	3	9	3	0	1	0	0
96	187167-154	5	3	1	1	0	1	0	1	0	0	0	0	0
96	187167-186	17	9	5	1	0	3	2	6	6	3	2	1	1
96	189117-022	7	3	0	2	0	2	0	0	0	0	0	0	0
96	189167-034	21	14	3	5	0	2	3	3	2	1	2	0	0
96	191267-014	0	0	0	0	0	0	0	0	1	1	0	0	0
96	193162-018	1	0	0	0	0	0	0	0	0	0	0	0	0
96	195107-010	58	24	17	3	0	6	8	15	18	1	0	1	1
96	195107-022	31	19	18	0	0	1	7	13	0	0	0	0	0
96	199361-010	4	0	0	0	0	0	0	0	0	0	0	0	0
96	201362-010	39	19	19	0	1	3	1	10	3	0	3	0	0
96	201362-014	28	15	14	0	0	2	0	9	0	0	0	0	0
96	201362-030	280	161	159	6	8	37	19	93	67	27	22	9	4
96	202362-014	5	3	3	0	0	1	0	2	4	3	0	0	0
96	203362-010	349	203	201	5	22	21	57	151	89	41	46	14	10
96	203582-030	55	36	35	0	1	4	9	24	11	7	2	4	0
96	203582-066	13	10	9	0	1	1	1	8	9	4	4	0	0
96	205362-014	12	5	4	1	0	0	2	5	1	1	0	0	0
96	205362-018	9	3	3	0	0	0	0	2	3	1	0	2	1
96	205367-054	109	26	14	3	6	6	11	7	5	0	1	1	1
96	206362-010	58	32	31	1	5	5	14	21	10	5	6	1	0
96	206367-014	19	7	6	0	3	2	3	5	3	2	1	1	0

TABLE 96 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	207682-018	1	1	0	0	0	0	0	0	1	1	0	0	0
96	209387-010	2	1	1	0	0	0	1	1	1	1	1	1	0
96	209387-030	3	0	0	0	0	0	0	0	0	0	0	0	0
96	209562-010	576	325	304	15	79	47	71	191	49	14	28	8	2
96	209587-026	29	14	6	5	2	3	5	6	3	3	2	1	1
96	209667-010	0	0	0	0	0	0	0	0	2	2	0	1	1
96	209687-010	15	5	4	0	1	0	2	3	0	0	0	0	0
96	209687-014	41	17	6	1	2	2	2	6	5	5	5	0	0
96	209687-022	1	1	1	0	0	0	0	1	0	0	0	0	0
96	210382-010	10	5	5	0	0	2	0	0	6	4	1	1	0
96	210382-014	150	78	71	7	3	16	8	39	30	10	13	4	2
96	210382-018	37	24	23	0	0	4	1	17	3	1	2	1	1
96	210382-022	6	4	3	1	0	1	0	2	3	1	1	1	0
96	211362-010	160	108	107	0	20	8	15	79	7	1	8	1	1
96	211362-018	135	37	33	1	8	3	5	20	89	77	63	13	13
96	211462-010	272	78	72	1	22	8	12	53	40	0	36	3	3
96	213362-010	68	31	13	7	8	1	9	13	3	2	2	0	0
96	214362-022	3	3	2	0	0	1	0	1	0	0	0	0	0
96	214382-014	16	13	13	0	2	3	2	5	2	2	1	0	0
96	214482-022	4	2	2	0	0	0	1	2	1	0	1	0	0
96	215482-010	22	15	13	1	0	7	1	7	2	1	1	0	0
96	216382-034	7	4	4	0	2	1	0	1	0	0	0	0	0
96	216482-010	73	38	35	3	2	9	3	13	18	13	5	3	2
96	216482-022	2	2	2	0	0	1	0	1	0	0	0	0	0
96	217382-010	2	1	1	0	0	0	0	1	3	3	0	1	0
96	219362-010	330	184	179	8	26	26	36	129	38	13	14	5	3
96	219367-026	5	2	0	2	0	0	0	1	0	0	0	0	0
96	221367-042	2	1	0	1	0	0	0	0	0	0	0	0	0
96	222387-058	141	56	20	16	11	11	11	26	16	10	13	0	0
96	235462-010	16	9	9	0	1	1	0	8	5	5	2	5	5
96	235662-022	37	26	26	0	1	6	10	19	9	8	3	1	0
96	235662-026	4	3	3	0	0	0	0	3	0	0	0	0	0
96	237367-022	2	1	1	0	1	0	1	0	1	0	0	0	0
96	237367-038	147	89	87	2	17	7	22	51	33	8	19	4	0
96	238362-010	16	10	5	0	1	1	2	7	4	0	4	0	0
96	238367-026	2	0	0	0	0	0	0	0	1	0	1	0	0
96	241217-010	12	6	2	1	0	0	4	3	1	1	1	0	0
96	241357-010	7	1	1	0	0	0	0	0	3	2	0	3	2
96	245362-014	11	7	7	0	0	2	0	6	0	0	0	0	0
96	247367-010	1	0	0	0	0	0	0	0	0	0	0	0	0
96	249167-014	5	4	2	2	0	2	0	0	0	0	0	0	0
96	249367-074	83	55	48	1	4	4	25	47	3	1	1	0	0

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS- TERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINOR- ITY	ECONOM- ICALLY DISAD- VANT- AGED	TOTAL RE- CEIVED	OPENING REC'D FEDERAL CON- TRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAY OR MOR
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	250257-010	14	7	0	5	0	2	1	4	13	13	3	15	1
96	250357-C18	9	6	5	1	0	2	0	5	0	0	0	0	
96	254357-014	7	5	1	1	0	0	1	1	1	0	1	0	
96	261357-050	23	11	6	1	4	3	3	5	3	0	2	0	
96	261357-054	4	2	0	0	1	0	2	1	0	0	0	2	
96	261357-062	15	6	2	0	3	0	3	3	7	0	3	2	
96	261357-066	50	31	29	0	8	4	4	19	5	0	1	3	
96	273353-010	37	19	2	7	0	5	0	5	0	0	0	0	
96	273357-022	6	2	0	0	0	0	0	1	0	0	0	0	
96	274357-022	2	0	0	0	0	0	0	0	0	0	0	0	
96	275357-034	4	2	2	0	0	0	0	0	0	0	0	0	
96	277357-034	2	0	0	0	0	0	0	0	0	0	0	0	
96	279357-050	13	8	1	4	0	2	1	2	1	0	0	0	
96	279357-054	266	63	50	6	12	5	6	34	204	191	92	5	
96	279357-062	32	21	12	2	4	3	1	13	1	1	0	0	
96	290477-014	374	100	83	4	35	12	21	49	171	44	132	1	
96	290477-018	62	22	10	0	9	2	7	13	42	0	22	0	
96	292353-010	59	24	2	10	5	5	2	10	9	3	9	1	
96	292483-010	4	3	2	1	0	1	0	0	0	0	0	0	
96	299137-010	33	18	11	1	2	1	2	7	1	0	0	0	
96	299357-014	15	8	6	0	0	1	0	4	3	0	3	0	
96	301474-010	374	300	296	0	23	59	197	295	1	0	1	0	
96	302687-010	1	1	1	0	0	0	0	1	0	0	0	0	
96	309677-010	10	4	4	0	0	1	0	4	3	0	1	6	
96	311477-014	314	55	52	0	17	6	6	44	283	75	231	2	
96	311677-010	53	34	33	0	6	6	4	26	1	0	0	1	
96	312474-010	127	87	56	11	4	12	7	55	15	2	11	1	
96	313131-014	27	13	0	5	0	3	2	1	2	0	1	0	
96	313361-014	129	69	28	11	16	12	20	34	40	5	30	4	
96	313361-022	109	48	21	3	18	1	11	25	12	1	8	1	
96	313361-026	2	2	0	0	1	0	0	2	0	0	0	0	
96	313361-030	8	7	4	0	2	1	0	4	2	0	2	0	
96	313381-010	2	0	0	0	0	0	0	0	0	0	0	0	
96	313684-010	4	2	0	0	1	0	1	0	1	0	1	0	
96	315361-010	79	46	25	9	6	12	13	25	5	4	2	1	
96	316684-018	15	8	0	5	1	0	2	5	0	0	0	0	
96	317684-014	8	4	4	0	1	1	1	3	0	0	0	0	
96	317687-010	29	16	6	5	3	4	7	10	3	0	1	0	
96	318687-010	456	210	100	15	106	20	66	124	57	14	43	100	9
96	319137-010	9	7	3	4	0	1	3	4	0	0	0	0	
96	319474-010	1	1	1	1	0	0	0	1	0	0	0	0	
96	323687-010	14	10	9	0	1	4	7	7	0	0	2	92	92

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	323687-014	46	28	28	0	3	8	9	25	5	1	3	0	0
96	330371-010	6	5	3	1	0	0	1	4	0	0	0	0	0
96	332271-010	42	29	28	1	1	4	8	24	1	0	1	0	0
96	352367-010	2	2	2	0	0	0	0	0	0	0	0	0	0
96	354374-010	6	6	6	0	0	1	1	4	0	0	0	0	0
96	355377-014	99	43	25	4	8	0	5	25	69	64	50	77	76
96	355674-014	597	405	386	7	33	50	140	357	40	21	19	27	6
96	355674-018	13	7	0	3	3	0	2	3	3	1	3	0	0
96	355677-010	39	25	21	0	5	2	13	21	2	0	2	1	1
96	359677-010	70	57	52	0	14	8	30	54	1	0	1	0	0
96	359677-018	59	32	30	0	6	4	13	30	3	0	0	0	0
96	359677-026	4	4	2	0	2	0	1	4	0	0	0	0	0
96	361665-010	1	1	1	0	0	0	0	1	0	0	0	0	0
96	361685-018	8	4	4	0	1	0	0	4	1	0	1	0	0
96	361687-014	3	1	1	0	0	0	1	1	0	0	0	0	0
96	361687-018	16	10	9	0	0	1	7	9	3	1	3	0	0
96	363682-018	22	17	12	1	2	2	10	13	0	0	0	0	0
96	363684-018	15	9	7	0	1	1	6	8	0	0	0	0	0
96	363685-026	1	0	0	0	0	0	0	0	0	0	0	0	0
96	369687-010	1	1	1	0	0	0	1	1	0	0	0	0	0
96	369687-022	1	1	1	0	0	0	0	0	0	0	0	0	0
96	372667-018	9	4	2	1	0	0	1	2	1	0	1	0	0
96	372667-034	89	44	6	16	7	7	16	22	24	4	12	2	0
96	372667-038	54	21	3	5	3	5	9	8	19	5	7	9	1
96	373364-010	5	3	0	1	0	0	1	1	0	0	0	0	0
96	375263-014	16	9	1	5	0	0	2	5	0	0	0	0	0
96	382664-010	292	169	15	27	60	34	53	91	61	12	49	7	4
96	389684-010	3	1	0	0	0	0	0	0	2	2	1	0	0
96	403687-018	4	2	0	0	0	1	1	2	0	0	0	0	0
96	404687-010	216	147	35	1	67	16	122	71	0	0	1	0	0
96	404687-014	8	5	0	0	1	1	3	4	8	0	8	8	8
96	452364-010	13	2	1	0	0	0	0	2	0	0	0	0	0
96	504382-014	12	3	0	0	0	1	1	1	0	0	0	0	0
96	504682-018	2	1	0	0	0	1	0	0	0	0	0	0	0
96	509686-010	4	3	0	1	0	0	2	3	0	0	0	0	0
96	514685-018	1	1	0	0	0	0	1	0	0	0	0	0	0
96	519687-022	7	6	0	0	1	0	2	3	2	0	2	2	2
96	521685-334	2	2	0	0	1	0	1	2	0	0	0	0	0
96	521687-134	1	1	1	0	1	0	1	1	0	0	0	0	0
96	526381-010	21	13	2	3	3	6	4	7	3	1	1	1	0
96	526684-010	8	5	0	2	1	1	0	2	1	0	1	0	0
96	526686-010	20	10	7	0	3	0	3	8	2	0	1	0	0

TABLE 96 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	529686-014	1	1	1	0	0	0	0	1	0	0	0	0	0
96	529687-130	4	2	0	0	0	0	1	2	1	0	1	0	0
96	529687-186	2	2	2	0	1	0	0	1	1	0	1	0	0
96	534662-010	9	4	0	1	1	1	1	1	0	0	0	0	0
96	551485-010	2	1	0	1	0	0	0	1	0	0	0	0	0
96	556682-010	1	1	0	1	1	0	0	0	0	0	0	0	0
96	556685-022	5	4	2	1	1	0	1	1	1	0	2	0	0
96	556685-038	4	3	0	0	0	0	0	2	1	0	1	0	0
96	556685-066	8	3	0	2	0	1	1	1	0	0	0	0	0
96	557382-010	5	3	0	3	0	1	0	1	8	4	6	1	1
96	558585-014	4	2	1	1	0	0	0	0	10	10	1	9	9
96	559382-018	4	2	0	1	0	1	0	0	0	0	0	0	0
96	559382-046	10	5	2	2	1	1	1	2	1	0	0	0	0
96	559567-010	3	1	0	0	0	1	1	0	1	0	1	0	0
96	589686-026	2	1	0	0	0	0	1	0	0	0	0	0	0
96	600280-022	101	52	3	19	8	4	10	18	12	3	6	2	1
96	600380-018	56	30	4	4	3	1	7	9	9	6	7	0	0
96	601280-046	10	3	0	2	0	2	0	1	0	0	0	0	0
96	603664-010	1	1	0	0	0	0	1	1	0	0	0	0	0
96	603682-026	7	4	0	1	0	3	2	3	0	0	0	0	0
96	604380-022	5	3	0	1	1	1	0	0	0	0	0	0	0
96	604380-026	7	2	0	1	0	0	0	0	4	2	0	0	0
96	604685-026	26	17	1	3	5	2	6	7	0	0	0	0	0
96	605280-010	7	2	0	1	0	1	0	1	1	0	1	0	0
96	605685-010	1	1	0	0	0	0	0	1	0	0	0	0	0
96	606682-010	3	2	2	0	0	0	1	2	0	0	0	0	0
96	609684-014	25	14	0	1	4	3	4	7	21	19	15	2	2
96	609685-018	99	55	6	25	6	5	16	20	0	0	0	0	0
96	615482-022	45	22	13	0	1	3	6	15	8	4	7	1	0
96	617482-026	1	1	0	1	0	0	0	1	0	0	0	0	0
96	617685-026	12	5	2	0	0	0	4	1	2	2	2	0	0
96	619260-008	1	1	0	1	0	0	0	1	0	0	0	0	0
96	619360-014	3	3	1	1	0	0	0	1	0	0	0	0	0
96	619381-010	2	1	0	0	0	0	0	0	0	0	0	0	0
96	620261-010	183	92	2	28	13	6	14	45	20	0	17	2	1
96	620261-022	4	1	0	1	0	0	0	0	0	0	0	0	0
96	620281-010	1	0	0	0	0	0	0	0	1	1	1	0	0
96	620231-046	2	0	0	0	0	0	0	0	0	0	0	0	0
96	620381-022	2	2	0	1	0	1	0	2	2	0	0	1	1
96	621261-018	1	1	0	1	0	0	0	0	0	0	0	0	0
96	621281-014	13	3	0	3	1	0	0	0	0	0	0	0	0
96	621381-014	1	1	1	0	0	0	1	0	0	0	0	0	0

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APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGIS-TERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINOR-ITY	ECONOM-ICALLY DISAD-VANT-AGED	TOTAL RE-CEIVED	OPENING REC'D FEDERAL CON-TRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	625281-010	27	9	0	6	0	1	0	2	1	1	0	0	0
96	625281-034	7	4	0	2	1	0	0	1	0	0	0	0	0
96	626281-010	20	11	0	3	0	3	2	4	7	4	5	1	0
96	633281-010	2	2	1	1	0	0	0	2	0	0	0	0	0
96	633281-018	6	4	0	3	0	0	1	1	2	0	1	0	0
96	637261-014	5	3	0	1	0	1	0	1	0	0	0	0	0
96	637261-018	2	2	1	1	0	1	0	1	0	0	0	0	0
96	637261-026	4	2	0	1	0	1	1	1	0	0	0	0	0
96	637664-010	2	1	0	1	0	0	0	0	0	0	0	0	0
96	638261-010	2	1	0	1	0	1	0	0	0	0	0	0	0
96	638261-022	1	1	0	0	1	0	0	0	2	2	2	0	0
96	638281-014	101	57	0	34	1	22	2	8	6	5	2	1	0
96	638281-018	12	7	0	3	0	3	0	2	2	2	0	0	0
96	638684-018	6	3	0	0	1	0	0	0	0	0	0	0	0
96	639281-014	4	3	0	2	0	1	0	0	0	0	0	0	0
96	639281-018	4	1	0	0	0	0	1	0	0	0	0	0	0
96	640685-058	11	5	1	2	0	0	0	3	1	0	1	0	0
96	641680-010	1	0	0	0	0	0	0	0	0	0	0	0	0
96	649380-010	14	6	2	0	1	0	2	4	7	6	7	0	0
96	649685-046	3	2	2	0	0	0	0	2	0	0	0	0	0
96	649687-010	4	4	3	0	1	3	1	3	0	0	0	0	0
96	650582-010	1	1	1	0	0	0	0	0	1	0	0	1	1
96	651682-010	0	0	0	0	0	0	0	0	1	1	1	0	0
96	653382-010	2	1	0	0	0	0	1	1	0	0	0	0	0
96	659662-010	2	1	0	0	0	0	1	1	3	0	2	1	0
96	660280-010	18	8	0	3	2	0	2	0	2	0	1	0	0
96	661281-022	2	1	0	1	1	0	0	0	0	0	0	0	0
96	681685-154	7	5	3	0	1	0	3	4	2	2	2	0	0
96	682685-010	1	1	1	0	0	0	1	1	0	0	0	0	0
96	683682-038	7	1	1	0	0	0	0	1	2	0	6	0	0
96	685665-014	23	4	3	0	0	2	2	3	1	0	1	0	0
96	689280-014	1	1	1	0	0	0	0	0	0	0	0	0	0
96	689684-010	1	1	1	0	0	0	0	1	0	0	0	0	0
96	690682-082	4	3	3	0	0	0	2	3	0	0	0	0	0
96	691382-010	6	4	2	0	1	0	0	0	1	1	1	0	0
96	691682-018	1	1	0	0	0	0	0	1	2	2	0	1	1
96	699682-022	5	4	2	0	1	0	2	2	0	0	0	0	0
96	705687-014	9	6	1	3	1	1	0	1	0	0	0	0	0
96	709684-014	1	1	0	0	1	0	0	1	0	0	0	0	0
96	710281-026	2	1	0	0	0	0	1	0	0	0	0	0	0
96	710381-038	1	0	0	0	0	0	0	0	0	0	0	0	0
96	710681-010	1	1	1	0	0	0	1	1	0	0	0	0	0

TABLE 96 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	712381-018	7	3	1	0	0	0	1	2	2	0	2	0	0
96	715281-010	2	1	0	1	0	1	0	1	0	0	0	0	0
96	716382-018	2	2	0	1	0	0	0	0	0	0	0	0	0
96	720281-010	2	1	0	1	1	0	1	0	1	0	0	0	0
96	720281-018	10	5	0	4	0	1	0	3	4	0	3	0	0
96	721281-018	0	0	0	0	0	0	0	0	1	0	1	0	0
96	721684-022	25	15	11	0	2	1	7	10	0	0	0	0	0
96	724684-026	11	9	9	0	1	3	2	5	3	0	5	0	0
96	726130-010	15	10	2	4	0	6	0	0	3	2	1	0	0
96	726261-010	11	8	6	0	0	1	2	5	0	0	0	0	0
96	726381-010	22	17	13	0	2	5	5	3	1	0	1	0	0
96	726384-010	9	4	3	0	2	0	0	1	5	4	2	0	0
96	726684-010	7	5	3	1	1	1	4	3	2	0	1	1	1
96	726684-018	265	160	129	7	24	59	62	58	49	32	34	12	12
96	726684-022	16	14	12	1	0	9	3	2	4	1	2	0	0
96	729384-010	14	6	6	0	0	2	3	6	1	0	1	0	0
96	729687-010	49	30	24	1	0	5	14	24	4	1	4	0	0
96	731587-010	1	1	1	0	0	0	1	1	0	0	0	0	0
96	731687-034	47	37	33	0	3	5	15	25	0	0	0	0	0
96	739381-018	0	0	0	0	0	0	0	0	1	1	0	0	0
96	739687-030	43	22	18	0	4	4	4	15	0	0	0	0	0
96	741684-026	21	10	3	2	1	1	2	4	2	1	1	0	0
96	741687-018	11	5	0	1	1	0	4	1	0	0	0	0	0
96	750384-010	118	90	0	43	0	27	9	1	0	0	0	0	0
96	753687-026	2	2	2	0	0	0	1	2	0	0	0	0	0
96	754684-030	2	2	2	0	0	1	0	1	0	0	0	0	0
96	754687-010	5	3	1	0	0	1	0	2	9	8	9	0	0
96	759584-010	15	9	1	3	0	5	5	2	0	0	0	0	0
96	780381-018	3	2	0	0	0	0	2	1	0	0	0	0	0
96	780682-018	4	3	3	0	0	0	2	3	0	0	0	0	0
96	781687-010	5	3	3	0	0	2	0	2	0	0	0	0	0
96	782684-042	2	1	1	0	0	0	0	1	0	0	0	0	0
96	782684-058	36	20	18	0	2	6	8	16	1	0	1	0	0
96	783682-014	5	4	3	0	1	1	1	3	0	0	0	0	0
96	785261-010	8	6	5	0	0	3	1	2	3	0	3	0	0
96	787682-046	150	82	80	1	5	21	40	60	4	2	4	0	0
96	788684-054	1	1	1	0	0	0	1	1	0	0	0	0	0
96	788687-030	4	4	4	0	0	1	4	4	0	0	0	0	0
96	789687-070	4	2	2	0	0	0	1	1	0	0	0	0	0
96	794687-050	2	2	1	0	1	0	1	1	0	0	0	0	0
96	795687-014	12	9	9	0	1	0	4	7	4	2	4	0	0
96	804281-010	33	19	1	8	3	3	0	6	5	1	5	0	0

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APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAYS OR MORE
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	806281-022	1	0	0	0	0	0	0	0	0	0	0	0	0
96	806381-026	1	1	0	1	0	1	1	1	0	0	0	0	0
96	806481-014	1	1	0	0	0	1	0	0	0	0	0	0	0
96	807381-010	65	30	1	6	8	4	2	13	5	1	4	1	1
96	809281-010	1	1	0	1	0	0	0	0	0	0	0	0	0
96	809684-010	2	2	1	0	1	0	1	1	0	0	0	0	0
96	811684-014	11	3	0	1	0	1	1	0	0	0	0	0	0
96	813684-022	2	1	1	0	0	0	0	1	0	0	0	0	0
96	819384-010	46	20	1	9	1	2	4	3	16	0	3	9	0
96	819684-010	10	7	1	0	2	1	5	2	0	0	0	0	0
96	821361-026	1	0	0	0	0	0	0	0	0	0	0	0	0
96	822281-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	822281-018	3	2	1	1	0	1	1	1	0	0	0	0	0
96	823261-018	5	2	0	2	1	0	0	0	0	0	0	0	0
96	824261-010	40	24	1	12	1	9	1	2	13	8	4	6	0
96	825281-018	3	1	0	1	0	0	0	1	0	0	0	0	0
96	826361-010	3	3	2	0	0	0	3	3	0	0	0	0	0
96	828281-010	46	24	1	16	2	1	2	7	3	0	3	1	1
96	828381-014	2	0	0	0	0	0	0	0	0	0	0	0	0
96	829281-014	8	5	0	3	1	0	2	1	0	0	0	0	0
96	840381-010	86	49	1	12	8	10	13	20	16	0	14	0	0
96	842361-018	2	0	0	0	0	0	0	0	3	0	0	0	0
96	842664-010	6	3	0	2	0	0	0	2	0	0	0	0	0
96	844364-010	20	12	0	2	0	2	5	4	1	0	0	1	0
96	845381-014	11	4	0	0	2	0	2	3	2	0	2	0	0
96	850683-010	2	1	0	0	0	1	0	1	0	0	0	0	0
96	859683-010	33	21	0	9	1	7	1	3	0	0	0	0	0
96	860281-010	17	9	0	1	1	0	2	6	6	0	0	0	0
96	860381-022	154	77	4	19	6	15	6	23	21	5	14	0	0
96	861381-018	17	12	0	5	0	4	1	4	0	0	0	0	0
96	862261-010	1	0	0	0	0	0	0	0	0	0	0	0	0
96	862281-018	13	6	0	4	0	2	1	2	4	2	2	1	1
96	862381-010	3	1	0	1	0	0	0	0	0	0	0	0	0
96	862381-018	46	29	0	17	0	17	1	6	2	1	1	1	0
96	862381-030	29	4	0	2	1	1	1	2	8	0	6	0	0
96	862381-034	8	4	0	1	0	0	0	0	3	0	3	0	0
96	862684-014	41	19	0	1	6	1	2	5	11	1	11	3	3
96	864381-010	1	1	0	0	0	0	1	1	0	0	0	0	0
96	864481-010	4	2	0	0	1	0	0	0	0	0	0	0	0
96	865381-010	11	9	1	1	2	0	0	0	0	0	0	0	0
96	866381-010	45	28	0	12	3	2	1	11	1	0	1	0	0
96	869664-014	252	142	8	46	27	13	29	51	41	4	26	6	6

TABLE 96 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 96

APPLICANTS AND NONAGRICULTURAL JOB OPENINGS BY OCCUPATION

ITEM NO	OCCUPATIONAL CODE	TOTAL REGISTERED APPS ACTIVE ANYTIME THIS FY	ACTIVE FILE							NONAGRICULTURAL OPENINGS				
			TOTAL	FEMALE	VETERAN	AGE GROUPS		MINORITY	ECONOMICALLY DISADVANTAGED	TOTAL RECEIVED	OPENING REC'D FEDERAL CONTRACTOR JOB LISTING	OPENING FILLED	UNFILLED OPEN	
						UNDER 22	45 AND OLDER						TOTAL	30 DAY OR MOR
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96	869684-010	3	1	0	0	1	0	1	1	0	0	0	0	0
96	869687-016	1	1	0	1	0	0	0	0	0	0	0	0	0
96	899281-014	8	5	0	2	1	2	0	2	0	0	0	0	0
96	899381-010	199	114	0	41	18	31	27	64	18	6	12	2	0
96	899684-022	11	4	1	1	2	1	2	2	0	0	0	0	0
96	904383-010	190	94	0	56	1	25	10	34	11	3	10	1	1
96	905663-014	267	141	1	60	7	22	16	55	12	2	9	0	0
96	906683-022	174	92	3	28	16	14	16	41	27	4	24	0	0
96	912367-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	913463-010	86	54	40	3	0	6	17	43	4	0	3	0	0
96	913463-018	7	4	0	3	0	3	1	3	0	0	0	0	0
96	915467-010	53	26	2	4	11	1	2	13	12	2	7	3	0
96	915473-010	6	6	1	2	1	2	1	1	3	0	2	0	0
96	915667-010	5	3	1	0	1	1	1	1	0	0	0	0	0
96	915687-018	5	2	0	0	0	0	1	1	0	0	0	0	0
96	919683-014	2	1	0	0	0	0	0	0	0	0	0	0	0
96	919687-014	15	8	3	0	3	0	5	4	0	0	0	0	0
96	920587-018	533	348	297	4	73	48	169	278	78	40	81	3	3
96	920685-078	41	26	18	1	1	4	11	25	1	1	1	0	0
96	920687-014	5	3	1	0	3	0	2	3	1	0	0	1	1
96	920687-126	9	7	6	1	0	1	2	4	5	3	5	0	0
96	920687-134	13	12	7	0	3	2	9	10	3	0	0	0	0
96	921663-010	3	3	0	0	0	0	0	1	0	0	0	0	0
96	929683-010	1	0	0	0	0	0	0	0	0	0	0	0	0
96	929686-010	9	6	4	1	1	3	2	3	0	0	0	0	0
96	929687-022	12	5	0	0	3	1	2	2	5	3	3	0	0
96	929687-030	1683	892	224	117	379	78	354	480	139	67	134	10	9
96	950382-026	5	3	0	2	0	2	0	0	1	1	0	1	1
96	952362-042	0	0	0	0	0	0	0	0	3	0	0	3	3
96	952382-018	2	1	0	0	0	1	0	0	0	0	0	0	0
96	954382-014	1	0	0	0	0	0	0	0	0	0	0	0	0
96	971381-050	3	3	1	0	0	2	0	1	0	0	0	0	0
96	972281-010	1	1	1	0	0	0	0	0	0	0	0	0	0
96	972381-010	2	2	0	1	0	0	0	1	0	0	0	0	0
96	973381-010	3	1	0	1	0	0	0	0	0	0	0	0	0
96	976487-010	2	2	2	0	0	1	1	2	6	6	3	2	2
96	976682-014	2	2	2	0	0	0	0	2	1	0	1	0	0
96	979382-022	1	0	0	0	0	0	0	0	0	0	0	0	0
96	TOTAL OF INVALID OCCUPATIONAL CODES	2609	2224	1565	141	86	551	799	2203	3	1	3	16	16

TABLE 10 - ALL JOB OPENINGS 03/31/81 MASSACHUSETTS SMSA 8000 TABLE 10

OPENINGS RECEIVED AND FILLED BY INDUSTRIAL DIVISION AND OCCUPATIONAL CATEGORY

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS		OPENINGS BY INDUSTRIAL DIVISION									
			TOTAL	AGR FOR & FISH	MINING	CONSTR	MFG	TRANSP & UTIL	WHS & RETAIL TRADE	FINANCE INS & REAL ESTATE	SER-VICES	PUBLIC ADMIN-ISTRA-TION	GOVT
A	B		C	D	E	F	G	H	I	J	K	L	M
	OPENINGS RECEIVED												
10010	TOTAL		5169	64	0	150	1287	87	1623	300	1252	406	406
10015	0-1	PROF TECH MGR	622	1	0	3	72	21	54	30	318	121	125
10020	20-21	CLERICAL	1006	2	0	7	185	28	212	221	270	81	97
10025	25-29	SALES	546	0	0	0	7	1	496	17	24	1	1
10030	30	DOMESTIC	46	0	0	0	0	0	0	0	44	2	2
10035	31-39	OTHER SERVICES	1070	0	0	0	13	3	666	19	230	139	118
10040	4	FARM F & F	197	51	0	9	8	0	4	0	94	31	34
10045	5	PROCESSING	203	4	0	0	184	0	10	0	4	1	0
10050	6	MACHINE TRADES	392	0	0	0	328	2	28	2	31	1	3
10055	7	BENCH WORK	270	0	0	3	228	1	13	0	25	0	2
10060	8	STRUCTURAL	269	0	0	112	50	0	19	7	58	23	13
10065	90-91	MOTOR FRGT, TRANSP	190	0	0	5	8	14	47	1	114	1	4
10070	92	PKG MTRL HNDL	303	6	0	9	173	14	73	2	21	5	5
10075	93-97	OTHER	55	0	0	0	31	3	1	1	19	0	2
	OPENINGS FILLED												
10085	TOTAL		3008	42	0	110	881	48	1119	140	574	91	166
10090	0-1	PROF TECH MGR	120	0	0	2	20	0	21	9	55	13	26
10095	20-21	CLERICAL	621	0	0	3	129	16	180	106	154	33	36
10100	25-29	SALES	314	0	0	0	4	1	287	6	16	0	1
10105	30	DOMESTIC	14	0	0	0	0	0	0	0	14	0	0
10110	31-39	OTHER SERVICES	713	0	0	0	12	2	467	10	196	26	78
10115	4	FARM F & F	81	38	0	9	9	0	4	0	7	14	16
10120	5	PROCESSING	96	3	0	0	86	0	6	0	1	0	0
10125	6	MACHINE TRADES	301	0	0	0	257	1	24	0	19	0	0
10130	7	BENCH WORK	187	0	0	3	159	1	8	0	15	1	3
10135	8	STRUCTURAL	175	0	0	80	23	1	13	6	48	4	4
10140	90-91	MOTOR FRGT, TRANSP	73	0	0	4	7	13	39	1	9	0	2
10145	92	PKG MTRL HNDL	284	1	0	9	164	13	69	1	27	0	0
10150	93-97	OTHER	29	0	0	0	14	0	1	1	13	0	0
	FILL RATE												
10160	TOTAL		58.2	65.6	0.0	73.3	68.7	55.2	68.9	46.7	45.8	22.4	40.9
10165	0-1	PROF TECH MGR	19.3	0.0	0.0	40.0	27.8	0.0	38.9	30.0	17.3	10.7	20.8
10170	20-21	CLERICAL	61.7	0.0	0.0	42.9	69.7	57.1	84.9	48.0	57.0	40.7	37.1
10175	25-29	SALES	57.5	0.0	0.0	0.0	57.1	100.0	57.9	35.3	66.7	0.0	100.0
10180	30	DOMESTIC	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0
10185	31-39	OTHER SERVICES	66.6	0.0	0.0	0.0	92.3	66.7	70.1	52.6	85.2	18.7	66.1

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TABLE 10 - ALL JOB OPENINGS 03/31/81 MASSACHUSETTS SMSA 8000
OPENINGS RECEIVED AND FILLED BY INDUSTRIAL DIVISION AND OCCUPATIONAL CATEGORY

ITEM NO	OCCUPATIONAL CATEGORIES AND DIVISIONS	OPENINGS BY INDUSTRIAL DIVISION										
		TOTAL	AGR FOR & FISH	MINING	CONSTR	MFG	TRANSP & UTIL	WHS & RETAIL TRADE	FINANCE INS & REAL ESTATE	SER-VICES	PUBLIC ADMIN-ISTRA-TION	GOVT
A	B	C	D	E	F	G	H	I	J	K	L	M
10190 4	FARM F & F	41.1	74.5	0.0	100.0	112.5	0.0	100.0	0.0	7.4	45.2	47.1
10195 5	PROCESSING	47.3	75.0	0.0	0.0	46.7	0.0	60.0	0.0	25.0	0.0	0.0
10200 6	MACHINE TRADES	76.8	0,0	0.0	0.0	78.4	50.0	85.7	0.0	61.3	0.0	0.0
10205 7	BENCH WORK	69.3	0.0	0.0	100.0	69.7	100.0	61.5	0.0	60.0	0.0	150.0
10210 8	STRUCTURAL	65.1	0.0	0.0	71.4	46.0	0.0	68.4	85.7	82.8	17.4	30.8
10215 90-91	MOTOR FRGT, TRANSP	33.4	0.0	0.0	80.0	87.5	92.9	83.0	100.0	7.9	0.0	50.0
10220 92	PKG MTRL HNDL	93.7	16.7	0.0	100.0	94.8	92.9	94.5	50.0	128.6	0.0	0.0
10225 93-97	OTHER	52.7	0.0	0.0	0.0	45.2	0.0	100.0	100.0	68.4	0.0	0.0

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MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/81 PAGE 002

TABLE 5--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
SPNG/CHC/HOLY MASSACHUSETTS
MARCH 1981

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE	OPENINGS UNFILLED			PERCENT DISTRIBUTION OF OPENINGS		
			30 DAYS OR MORE				
	TOTAL	TOTAL	TOTAL	AS A % OF TOTAL UNFILLED	AVAILABLE	UNFILLED	UNFILLED 30
TOTAL OPENINGS, ALL INDUSTRIES	680	607	227	37.40%	100.00%	100.00%	100.00%
TOTAL AGRICULTURE, FORESTRY, AND FISHING (01-09)	26	19	6	31.58%	3.82%	3.13%	2.64%
AGRICULTURAL PRODUCTION--CROPS (01)	26	19	6	31.58%	100.00%	100.00%	100.00%
TOTAL CONSTRUCTION (15-17)	14	10	4	40.00%	2.06%	1.65%	1.76%
BLDG. CONST.-GEN. CONTR. & OPER. BLDR. (15)	1	1	0	.00%	7.14%	10.00%	.00%
CONST. OTHER THAN BLDG.-GEN. CONTRACT. (16)	6	5	2	40.00%	42.86%	50.00%	50.00%
CONSTRUCTION--SPECIAL TRADE CONTRACTORS(17)	7	4	2	50.00%	50.00%	40.00%	50.00%
TOTAL MANUFACTURING (20-39)	167	129	52	40.31%	24.56%	21.25%	22.91%
DURABLE GOODS (24,25,32-39)	92	78	30	38.46%	55.09%	60.47%	57.69%
PRIMARY METAL INDUSTRIES (33)	4	4	2	50.00%	4.35%	5.13%	6.67%
FAB. MET. PRO., EX. MACH.&TRANS. EQUIP.(34)	17	17	3	17.65%	18.48%	21.79%	10.00%
MACHINERY, EXCEPT ELECTRICAL (35)	25	18	4	22.22%	27.17%	23.08%	13.33%
ELEC. AND ELEC. MACH., EQUIP., AND SUP.(36)	36	29	21	72.41%	39.13%	37.18%	70.00%
INSTRUMENTS, OPTICAL GOODS, TIME PIECES(38)	2	2	0	.00%	2.17%	2.56%	.00%
MISCELLANEOUS MANUFACTURING INDUSTRIES (39)	8	8	0	.00%	8.70%	10.26%	.00%
NONDURABLE GOODS (20-23,26-31)	75	51	22	43.14%	44.91%	39.53%	42.31%
TEXTILE MILL PRODUCTS (22)	12	7	1	14.29%	16.00%	13.73%	4.55%
APPAREL AND OTHER FINISHED PROD.,FAB. (23)	6	5	4	80.00%	8.00%	9.80%	18.18%
PAPER AND ALLIED PRODUCTS (26)	12	6	0	.00%	16.00%	11.76%	.00%
PRINTING, PUBLISHING, AND ALLIED IND. (27)	6	3	1	33.33%	8.00%	5.88%	4.55%
CHEMICALS AND ALLIED PRODUCTS (28)	12	11	10	90.91%	16.00%	21.57%	45.45%
RUBBER AND MISC. PLASTICS PRODUCTS (30)	18	10	6	60.00%	24.00%	19.61%	27.27%
LEATHER AND LEATHER PRODUCTS (31)	9	9	0	.00%	12.00%	17.65%	.00%
TOTAL TRANS., COMM., ELEC., GAS, SAN. SVC (40-49)	11	11	9	81.82%	1.62%	1.81%	3.96%
U.S. POSTAL SERVICE (43)	1	1	0	.00%	9.09%	9.09%	.00%
COMMUNICATION (48)	3	3	3	100.00%	27.27%	27.27%	33.33%
ELECTRIC, GAS, AND SANITARY SERVICES (49)	7	7	6	85.71%	63.64%	63.64%	66.67%
TOTAL WHOLESALE TRADE (50-51)	19	18	13	72.22%	2.79%	2.97%	5.73%
WHOLESALE TRADE--DURABLE GOODS (50)	17	16	12	75.00%	89.47%	88.89%	92.31%
WHOLESALE TRADE--NONDURABLE GOODS (51)	2	2	1	50.00%	10.53%	11.11%	7.69%
TOTAL RETAIL TRADE (52-59)	41	29	5	17.24%	6.03%	4.78%	2.20%

TABLE 5--ES JOB BANK OPENINGS IN REPORTING DISTRICTS
AND PERCENT DISTRIBUTION OF JOB BANK OPENINGS BY SELECTED INDUSTRY GROUP
SPNG/CHC/HOLY MASSACHUSETTS
MARCH 1981

SELECTED INDUSTRY GROUP	OPENINGS AVAILABLE	OPENINGS UNFILLED			PERCENT DISTRIBUTION OF OPENINGS		
			30 DAYS OR MORE				
	TOTAL	TOTAL	TOTAL	AS A % OF TOTAL UNFILLED	AVAILABLE	UNFILLED	UNFILLED 30
TOTAL RETAIL TRADE (52-59)							
GENERAL MERCHANDISE STORES (53)	3	1	0	.00%	7.32%	3.45%	.00%
FOOD STORES (54)	2	2	1	50.00%	4.88%	6.90%	20.00%
AUTOMOTIVE DEALERS AND GAS SVC. STATION(55)	3	3	1	33.33%	7.32%	10.34%	20.00%
APPAREL AND ACCESSORY STORES (56)	9	7	2	28.57%	21.95%	24.14%	40.00%
EATING AND DRINKING PLACES (58)	14	11	0	.00%	34.15%	37.93%	.00%
MISCELLANEOUS RETAIL (59)	10	5	1	20.00%	24.39%	17.24%	20.00%
TOTAL FINANCE, INSURANCE, AND REAL ESTATE (60-67)	48	45	20	44.44%	7.06%	7.41%	8.81%
BANKING (60)	26	26	17	65.38%	54.17%	57.78%	85.00%
CREDIT AGENCIES OTHER THAN BANKS (61)	1	0	0	.00%	2.08%	.00%	.00%
INSURANCE (63)	13	13	2	15.38%	27.08%	28.89%	10.00%
INSURANCE AGENTS, BROKERS, AND SERVICE (64)	3	2	0	.00%	6.25%	4.44%	.00%
REAL ESTATE (65)	3	2	1	50.00%	6.25%	4.44%	5.00%
HOLDING AND OTHER INVESTMENT OFFICES (67)	2	2	0	.00%	4.17%	4.44%	.00%
TOTAL SERVICES (70-89)	166	160	40	25.00%	24.41%	26.36%	17.62%
HOTELS, ROOMING HOUSES, CAMPS AND REL. (70)	1	0	0	.00%	.60%	.00%	.00%
PERSONAL SERVICES (72)	2	2	0	.00%	1.20%	1.25%	.00%
BUSINESS SERVICES (73)	50	49	4	8.16%	30.12%	30.63%	10.00%
AUTOMOTIVE REPAIR, SERVICES, & GARAGES (75)	5	5	2	40.00%	3.01%	3.13%	5.00%
MISCELLANEOUS REPAIR SERVICES (76)	1	1	1	100.00%	.60%	.63%	2.50%
AMUSEMENT AND RECR. SVC. EXCEPT MOVIES (79)	10	10	0	.00%	6.02%	6.25%	.00%
HEALTH SERVICES (80)	54	51	13	25.49%	32.53%	31.88%	32.50%
LEGAL SERVICES (81)	1	1	0	.00%	.60%	.63%	.00%
EDUCATIONAL SERVICES (82)	23	22	17	77.27%	13.86%	13.75%	42.50%
SOCIAL SERVICES (83)	11	11	1	9.09%	6.63%	6.88%	2.50%
MEMBERSHIP ORGANIZATIONS (86)	4	4	0	.00%	2.41%	2.50%	.00%
PRIVATE HOUSEHOLDS (88)	1	1	0	.00%	.60%	.63%	.00%
MISCELLANEOUS SERVICES (89)	3	3	2	66.67%	1.81%	1.88%	5.00%
TOTAL PUBLIC ADMINISTRATION (91-97)	188	186	78	41.94%	27.65%	30.64%	34.36%
JUSTICE, PUBLIC ORDER, AND SAFETY (92)	1	1	0	.00%	.53%	.54%	.00%
ADMINISTRATION OF HUMAN RESOURCES PGMS. (94)	94	92	78	84.78%	50.00%	49.46%	100.00%
ADMIN. OF ENVIR. QUAL. & HOUSING PGMS. (95)	92	92	0	.00%	48.94%	49.46%	.00%
NATIONAL SECURITY AND INTERNAT. AFFAIRS(97)	1	1	0	.00%	.53%	.54%	.00%

Table 3A Occupations of Employed Persons, by Sex and Minority Status, (Percent Distribution)
Area : Springfield-Chicopee-Holyoke LMA
Year : 1979

Occupational Category and Group	BOTH SEXES					FEMALE				
	Total	White	Black	Other Races	Hispanic	Total	White	Black	Other Races	Hispanic
ALL OCCUPATIONS BY PERCENT	100.0	96.5	3.2	0.3	1.2	100.0	96.1	3.5	0.4	0.9
PROFESSIONAL, TECHNICAL AND RELATED	100.0	97.3	1.9	0.8	0.9	100.0	96.9	2.6	0.5	0.7
Engineers, Technical	100.0	98.7	0.3	1.0	0.8	100.0	NA	NA	NA	NA
Physicians, Dentists and Related	100.0	97.8	0.6	1.6	0.0	100.0	97.2	2.8	0.0	0.0
Medical and Health Exc. Practs.	100.0	97.2	2.8	0.0	0.4	100.0	99.1	0.9	0.0	1.7
Teachers, Elementary and Secondary	100.0	97.1	2.6	0.3	0.9	100.0	97.1	2.9	0.0	0.4
Other Professional Workers	100.0	97.1	1.7	1.2	1.2	100.0	96.3	2.2	1.5	1.2
TECHNICIANS, EXCEPT HEALTH	100.0	97.8	1.3	0.9	0.3	100.0	96.9	3.1	0.0	3.1
MANAGERS EXCEPT FARM	100.0	98.6	1.2	0.2	0.7	100.0	97.6	1.8	0.6	0.6
SALES WORKERS	100.0	98.7	1.2	0.1	0.6	100.0	98.3	1.6	0.1	0.2
Retail Stores	100.0	98.4	1.4	0.2	0.4	100.0	98.4	1.5	0.1	0.3
Other Sales Workers	100.0	98.9	1.1	0.0	0.9	100.0	97.8	2.2	0.0	0.0
CLERICAL	100.0	97.3	2.4	0.3	0.7	100.0	97.3	2.5	0.2	0.7
Secretaries, Stenos and Typists	100.0	98.0	1.7	0.3	0.7	100.0	98.0	1.7	0.3	0.7
Other Clericals	100.0	97.0	2.7	0.3	0.8	100.0	97.0	2.8	0.2	0.8
CRAFTSMEN AND KINDRED WORKERS	100.0	97.4	2.5	0.1	0.9	100.0	96.6	3.4	0.0	0.0
Automobile and Body Repairmen	100.0	96.7	2.9	0.4	1.1	NA	NA	NA	NA	NA
Mechanics and Repairmen Exc. Auto	100.0	96.4	3.4	0.2	1.4	NA	NA	NA	NA	NA
Machinists	100.0	95.4	4.6	0.0	1.3	NA	NA	NA	NA	NA
Metal Craftsmen Exc. Mach.	100.0	96.4	3.6	0.0	1.0	NA	NA	NA	NA	NA
Carpenters	100.0	99.0	1.0	0.0	0.5	NA	NA	NA	NA	NA
Construction Exc. Carpenters	100.0	97.5	2.1	0.4	0.6	NA	NA	NA	NA	NA
Other Craftsmen	100.0	98.2	1.8	0.0	6.8	NA	NA	NA	NA	NA
OPERATIVES, EXC. TRANSPORTATION	100.0	93.7	5.9	0.4	2.7	100.0	94.5	5.0	0.5	2.0
Durable Goods Manufacturing	100.0	94.2	5.6	0.2	2.5	100.0	93.0	6.9	0.1	1.9
Nondurable Goods Manufacturing	100.0	94.7	4.6	0.7	2.7	100.0	95.9	3.4	0.7	1.6
Nonmanufacturing Industries	100.0	91.3	8.4	0.3	2.8	100.0	94.1	5.1	0.8	3.7
TRANSPORT OPERATIVES	100.0	96.1	3.8	0.1	0.8	100.0	75.0	25.0	0.0	0.0
Truck Drivers	100.0	95.8	3.9	0.3	0.7	NA	NA	NA	NA	NA
Other Transport, Operatives	100.0	96.3	3.7	0.0	0.8	NA	NA	NA	NA	NA
LABORERS NONFARM	100.0	93.4	6.4	0.2	1.7	100.0	87.0	12.2	0.8	1.5
SERVICE WORKERS EXC. PRIV. HOUSEHOLD	100.0	95.2	4.5	0.3	1.0	100.0	94.6	5.0	0.4	0.5
Cleaning Service	100.0	93.2	6.3	0.5	0.9	100.0	90.5	8.9	0.6	0.6
Food Service	100.0	97.7	1.8	0.5	0.8	100.0	98.2	1.3	0.5	0.4
Health Service	100.0	89.6	10.2	0.2	1.7	100.0	89.5	10.5	0.0	1.0
Protective Service	100.0	97.2	2.8	0.0	0.5	100.0	89.3	7.1	3.6	0.0
Other Service Workers	100.0	94.7	5.0	0.3	1.2	100.0	95.1	4.5	0.4	0.4
PRIVATE HOUSEHOLD WORKERS	100.0	82.6	16.5	0.9	0.9	100.0	84.6	15.4	0.0	1.9
AGRICULTURAL WORKERS	100.0	97.9	1.6	0.5	6.7	100.0	94.6	2.7	2.7	10.8

Source: Summary Manpower Indicators, Lawrence-Berkeley Laboratory
The Decennial Census of Population, 1970

JOB OPENINGS RECEIVED AND FILLED BY OCCUPATIONAL CATEGORY AND HOURLY WAGE RATE

ITEM NO	ITEM		TOTAL NONAG AND AG.	UNDER $3.10	$3.10- $3.34	$3.35- $3.49	$3.50- $3.99	$4.00- $4.49	$4.50- $4.99	$5.00- $5.49	$5.50- $5.99	$6.00 & OVER	AVERAGE	OTHER*
A	B		C	D	E	F	G	H	I	J	K	L	M	N
	OPENINGS RECEIVED													
B07010	TOTAL		5169	36	1264	1076	807	805	239	288	131	521	4.14	2
B07015	0-1	PROF TECH MGR	622	1	4	61	43	72	53	76	37	274	6.13	1
B07020	20-24	CLERICAL	1006	3	237	210	249	173	65	32	19	18	3.79	0
B07025	25-29	SALES	546	0	389	90	29	10	2	10	8	8	3.37	0
B07030	30	DOMESTIC	46	1	6	27	6	5	0	1	0	0	3.44	0
B07035	31-39	OTHER SERV	1070	29	432	276	159	132	9	24	3	6	3.45	0
B07040	4	FARM F & F	197	0	31	113	21	23	1	1	2	5	3.70	0
B07045	5	PROCESSING	203	0	14	9	24	107	19	10	5	15	4.40	0
B07050	6	MACHINE TRADES	392	1	29	25	65	118	34	33	21	66	4.59	0
B07055	7	BENCH WORK	270	0	51	60	105	20	15	6	7	6	3.68	0
B07060	8	STRUCTURAL	269	1	5	13	33	36	19	57	16	89	5.34	0
B07065	90-91	MOTOR FRGT, TRANSP	190	0	8	109	22	29	7	3	1	10	3.81	1
B07070	92	PKG MTRL HNDL	303	0	48	65	44	76	15	31	7	17	4.20	0
B07075	93-97	OTHER	55	0	10	18	7	4	0	4	5	7	4.34	0
	OPENINGS FILLED													
B07085	TOTAL		3008	14	1043	474	506	461	146	138	70	155	3.87	1
B07090	0-1	PROF TECH MGR	120	0	7	6	12	26	25	12	12	19	5.00	1
B07095	20-24	CLERICAL	621	2	204	168	127	62	27	19	5	7	3.61	0
B07100	25-29	SALES	314	0	238	50	17	4	0	2	1	2	3.24	0
B07105	30	DOMESTIC	14	0	3	6	4	1	0	0	0	0	3.44	0
B07110	31-39	OTHER SERV	713	11	401	100	119	61	8	10	1	2	3.39	0
B07115	4	FARM F & F	81	0	37	9	13	15	0	0	2	5	4.04	0
B07120	5	PROCESSING	96	0	9	8	20	34	11	8	5	1	4.15	0
B07125	6	MACHINE TRADES	301	0	27	23	52	103	30	20	16	30	4.34	0
B07130	7	BENCH WORK	187	0	45	47	52	19	10	5	7	2	3.67	0
B07135	8	STRUCTURAL	175	1	4	1	23	32	15	29	12	58	5.42	0
B07140	90-91	MOTOR FRGT, TRANSP	73	0	5	4	16	29	6	1	1	11	4.58	0
B07145	92	PKG MTRL HNDL	284	0	56	49	45	71	14	28	4	17	4.19	0
B07150	93-97	OTHER	29	0	7	3	6	4	0	4	4	1	4.18	0

*1 OTHER INCLUDES WAGES NOT PAID ON A TIME BASIS.

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MONTHLY YEAR TO DATE
FOR PERIOD ENDING 03/31/81

TABLE 7--TOTAL ES JOB BANK OPENINGS AND AVERAGE PAY

TOTAL MASSACHUSETTS
APRIL 1981

STATE JOB BANK	OPENINGS AVAILABLE		OPENINGS UNFILLED		OPENINGS UNFILLED 30 DAYS	
	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY	TOTAL	AVERAGE PAY
MASSACHUSETTS	8,288	$ 9,747	6,656	$ 10,109	3,191	$ 10,135
BOSTON	3,293	10,466	2,890	10,705	1,237	10,592
FALL RIVER	154	8,512	122	8,679	47	8,958
FITCHB/LEOMIN	257	8,568	152	9,130	85	9,107
LAWREN/HAVRHL	207	9,134	157	9,532	111	9,363
LOWELL	234	10,345	173	10,843	129	11,516
NEW BEDFORD	265	10,129	192	9,963	72	9,604
PITTSFIELD	99	9,127	68	9,656	51	9,796
SPNG/CHC/HOLY	819	9,729	740	9,838	343	10,669
WORCESTER	683	9,269	497	9,913	331	9,436
BALANCE-STATE	2,277	9,026	1,665	9,436	785	9,582

Table 24
Covered Employment by CETA Areas (Hampden County and Hampshire County)
Springfield-Chicopee-Holyoke Labor Market Area
1979

Location	Total Employment	Agriculture	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale & Retail Trade	Finance Insurance Real Estate	Services
Hampden County (CETA Prime Sponsor Area)									
Cities									
Chicopee	14,312	77	5	458	7,337	290	3,682	410	2,053
Holyoke	20,550	15	0	931	9,556	382	4,344	816	4,506
Springfield	69,380	160	0	1,816	19,451	4,648	18,410	7,600	17,295
Westfield	13,324	174	59	298	7,287	372	2,846	403	1,885
Towns									
Agawam	5,535	74	0	164	2,252	224	1,548	98	1,175
Brimfield	574	20	0	13	43	0	44	7	447
E. Longmeadow	6,585	24	0	262	4,446	177	892	162	622
Granville	180	15	0	11	138	1	7	0	8
Hampden	527	21	0	64	15	22	277	10	118
Longmeadow	1,682	14	0	69	0	20	752	116	711
Ludlow	2,990	5	18	323	1,047	66	862	147	522
Monson	1,379	7	5	23	1,073	13	184	26	48
Palmer	3,875	4	0	50	2,009	290	755	118	649
Russell	514	0	0	1	487	0	27	0	0
Southwick	833	90	1	29	221	21	408	7	56
Wales	11	0	0	4	0	5	1	0	1
W. Springfield	13,305	35	0	502	3,468	1,468	4,579	768	2,483
Wilbraham	2,185	23	22	70	1,186	28	483	65	308
SUBTOTAL	157,741	758	110	5,088	60,016	8,027	40,102	10,753	32,887
Hampshire County (CETA Prime Sponsor Area)									
Cities									
Northampton	10,415	38	7	270	1,972	504	2,909	407	4,308
Towns									
Amherst	4,137	81	0	142	179	81	1,354	297	2,003
Belchertown	391	30	0	38	32	14	140	41	96
Chesterfield	29	0	0	4	8	0	15	1	1
Easthampton	3,910	16	0	169	2,523	84	592	90	436
Granby	260	3	0	43	13	16	117	4	64
Hadley	2,632	220	0	70	11	86	2,015	14	216
Hatfield	512	145	0	60	167	0	118	4	18
Pelham	20	0	0	2	9	0	0	0	9
Southampton	235	13	0	65	43	2	83	3	26
S. Hadley	4,097	6	0	175	1,909	91	818	138	960
Westhampton	37	33	0	3	0	1	0	0	0
Williamsburg	364	2	0	16	96	117	65	6	62
SUBTOTAL	27,039	587	7	1,057	6,962	996	8,226	1,005	8,199
COMBINED TOTAL	184,780	1,345	117	6,145	66,978	9,023	48,328	11,758	41,086

Table 25
Covered Employment by Job Match Servicing Centers in the
Springfield-Chicopee-Holyoke Labor Market Area
1979

Location	Total Employment	Agriculture	Mining	Contract Construction	Manufacturing	Trans. Comm. Utilities	Wholesale & Retail Trade	Finance Insurance Real Estate	Services
Chicopee									
Servicing-Chicopee	14,312	77	5	458	7,337	290	3,682	410	2,053
Total	14,312	77	5	458	7,337	290	3,682	410	2,053
Holyoke									
Servicing-Granley	260	3	0	43	13	16	117	4	64
Holyoke	20,550	15	0	931	9,556	382	4,344	816	4,506
S. Hadley	4,097	6	0	175	1,909	91	818	138	960
Total	24,907	24	0	1,149	11,478	489	5,279	958	5,530
Northampton									
Servicing-Amherst	4,137	81	0	141	179	81	1,354	297	2,003
Chesterfield	29	0	0	4	8	0	15	1	1
Cummington	81	0	0	6	18	22	3	0	32
Easthampton	3,910	16	0	169	2,523	84	592	90	436
Goshen	39	3	0	1	1	0	34	0	0
Hadley	2,632	220	0	70	11	86	2,015	14	216
Hatfield	512	145	0	60	167	0	118	4	18
Northampton	10,415	38	7	270	1,972	504	2,909	407	4,308
Pelham	20	0	0	2	9	0	0	0	9
Bloomfield	1,859	9	41	143	1,164	33	308	25	136
Southampton	235	13	0	65	43	2	83	3	26
Westhampton	37	33	0	3	0	1	0	0	0
Williamsburg	364	2	0	16	96	117	65	6	62
Worthington	109	41	0	1	0	14	30	0	23
Total	24,379	601	48	951	6,191	944	7,526	847	7,271
Springfield									
Servicing-Agawam	5,535	74	0	164	2,252	224	1,548	98	1,175
Blandford	69	0	0	2	1	0	66	1	0
Chester	249	0	0	0	216	0	18	0	15
E. Longmeadow	6,585	24	0	262	4,446	177	872	162	622
Granville	180	15	0	11	138	1	7	0	8
Hampden	527	21	0	64	15	22	277	10	118
Huntington	80	5	0	20	3	11	34	6	1
Longmeadow	1,682	14	0	69	0	20	752	116	711
Ludlow	2,990	5	18	323	1,047	66	862	147	522
Middlefield	6	3	0	0	0	0	0	0	3
Montgomery	29	0	0	8	0	0	0	0	21
Russell	514	0	0	1	487	0	27	0	0
Southwick	833	90	1	29	221	21	408	7	56
Springfield	69,380	160	0	1,816	19,451	4,648	18,410	7,600	17,295
Tolland	15	0	0	0	0	0	2	3	10
W. Springfield	13,307	35	0	502	3,468	1,470	4,579	768	2,483
Westfield	13,324	174	59	298	7,287	372	2,846	403	1,885
Wilbraham	2,185	23	22	70	1,186	28	483	65	308
TOTAL	117,490	643	100	3,639	40,218	7,060	31,191	9,386	25,213

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
TOTAL - ALL OCCUPATIONS	$ 9,576	$10,413	$ 8,347	$ 8,396	$ 9,378	$10,068	$ 8,842	$ 9,520	$10,289	$ 8,826	$ 8,896
Prof., Tech., Managerial 2/	14,844	16,286	15,149	13,029	12,807	18,307	11,292	11,627	14,099	11,826	13,711
Architect & Engineering	18,729	20,294	--	16,200	13,440	18,075	13,294	19,500	18,008	17,843	15,737
Math. & Physical Science	19,112	20,256	16,000	--	17,304	23,563	10,400	--	18,269	--	16,960
Life & Social Sciences	13,078	15,057	13,165	10,600	10,500	9,000	--	9,758	12,850	9,416	14,500
Medicine & Health	12,749	12,983	10,400	--	10,000	12,827	11,660	12,480	13,171	12.209	12,086
Education	12,549	12,860	--	9,000	11,100	--	9,500	--	12,123	9,640	16,169
Museum, Library	9,752	11,494	--	--	--	--	7,800	--	10,625	--	11,878
Law Jurisprudence	15,103	15,804	--	--	--	--	--	--	--	13,000	--
Writing	14,346	18,152	7,662	--	--	--	--	--	13,000	--	14,000
Art	11,000	--	--	--	16,916	--	--	--	10,400	--	12,200
Entertainment	12,480	--	--	--	--	--	--	--	13,000	--	--
Admin. Spec.	14,087	15,398	--	--	12,980	--	10,610	11,573	13,712	12,940	14,202
Managers	14,293	15,053	18,492	11,700	13,099	--	14,140	10,831	14,271	13,266	12,451
Misc., Prof., Tech.,	9,662	12,375	--	13,750	13,966	--	10,000	8,800	11,763	7,679	13,348
Clerical Sales 2/	8,211	8,544	7,819	8,215	8,713	8,433	8,032	8,459	8,774	7,798	7,774
Steno., Typing & Related	8,634	8,721	8,138	7,852	9,082	8,975	7,940	8,751	8,378	8,109	8,742
Computing Acc't., Recor.	8,169	8,255	7,592	8,508	9,328	8,294	8,080	8,216	8,138	7,846	8,013
Prod. & Stock Clerk	8,430	9,104	--	8,320	8,109	8,832	12,640	--	7,984	8,525	7,540
Information Distr.	8,430	8,800	7,696	7,800	7,722	--	7,124	6,968	7,281	10,184	7,667
Miscellaneous Clerical	8,920	8,726	--	8,108	8,060	7,973	--	--	8,533	8,706	11,272
Salespersons Services	12,778	18,867	10,400	--	15,600	--	--	--	10,400	--	12,682
Miscellaneous Sales	7,549	8,143	7,072	8,020	8,343	7,233	7,163	8,963	11,856	7,518	7,089

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981
(continued)

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Service 3/	$ 3.94	$ 3.94	$ 3.42	$ 3.39	$ 3.87	$ 3.55	$ 4.32	$3.43	$ 4.12	$ 4.00	$3.91
Domestic	3.49	3.50	--	--	3.50	--	--	--	3.35	3.50	3.48
Food & Beverage Preparation	4.05	4.07	3.35	3.35	3.88	3.84	5.35	3.35	4.19	3.84	4.16
Protective Services	3.95	3.92	3.37	3.48	4.05	3.49	4.41	--	4.31	4.12	3.83
Building & Related Prods.	3.91	4.15	3.75	--	4.18	3.54	3.81	4.12	3.86	3.74	3.84
Other Service Occupations	3.95	4.00	3.48	3.35	3.66	3.75	3.43	3.47	4.07	4.05	3.91
Farming, Fishing, Forestry 3/	4.13	4.39	3.50	--	4.50	--	4.33	--	4.04	3.40	4.02
Plant Farming	3.92	4.37	3.50	--	4.50	--	4.33	--	3.59	--	3.54
Animal Farming	3.95	4.00	--	--	--	--	--	--	--	3.40	4.18
Forestry	4.43	5.50	--	--	--	--	--	--	4.46	--	4.37
Processing 3/	4.24	4.12	3.80	4.00	4.36	5.00	4.75	3.43	5.44	4.47	3.95
Ore Refining, Foundry	4.07	--	4.00	--	3.50	--	--	3.50	5.43	4.00	3.81
Food, Tobacco	3.96	3.91	--	4.67	4.00	5.00	--	3.35	4.18	3.75	3.88
Paper	3.50	--	--	--	--	--	--	--	--	3.50	--
Chem., Plastic, Synthetic	4.37	3.95	3.70	3.95	5.27	--	3.75	--	5.65	4.75	4.11
Stone, Clay, Glass	4.21	--	4.64	--	--	--	--	--	--	--	4.00
Leather & Textiles	4.30	4.50	--	4.00	3.87	--	5.25	--	4.20	3.75	3.55
Processing Occup. NEC	4.11	4.45	--	--	4.00	--	--	--	--	--	3.85
Machine Trades 3/	5.05	5.70	4.04	4.02	4.60	5.34	5.00	5.18	5.32	4.86	4.88
Metal Machining	5.73	6.12	4.30	5.30	6.36	5.63	6.75	5.20	5.62	5.21	5.94
Metal Working NEC	4.49	4.39	--	--	4.15	4.42	--	--	3.80	4.43	4.55
Mechanics & Repair	5.41	5.48	4.33	5.19	6.08	5.64	4.67	4.69	4.93	4.83	5.92

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981
(continued)

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Printing & Paperworking	$ 4.51	$ 5.25	$ --	$ --	$ 4.05	$ 4.35	$ 5.00	$ 4.64	$ 4.91	$ 3.86	$ 3.90
Wood Machining	5.07	7.32	--	--	3.75	--	--	4.50	--	4.25	4.00
Textiles	4.34	3.40	3.55	3.35	4.25	4.88	4.89	3.50	--	4.83	3.78
Machine Trades NEC	4.37	5.02	--	3.51	4.19	--	--	5.76	5.85	5.54	3.88
Benchwork 3/											
Scientific & Elect. Equipment	3.97	4.50	--	6.00	3.89	3.82	3.42	4.35	3.48	3.44	4.50
Stone & Wood Products	3.68	4.25	--	3.75	3.35	--	--	3.50	--	--	3.50
Textile, Leather	3.67	3.76	3.79	3.43	4.19	3.98	4.25	3.47	3.41	3.60	3.66
Metal Products	3.59	3.40	--	3.55	6.00	--	3.42	--	3.57	3.61	3.86
Other Benchwork Occupations	4.71	4.70	--	3.73	4.02	4.92	4.00	3.50	4.00	4.03	3.68
Structural 3/	5.45	5.81	4.95	4.93	6.62	5.60	4.52	5.24	6.31	4.66	5.11
Metal Fabrication	5.77	5.86	4.99	4.27	7.60	6.42	5.76	4.00	7.87	5.00	5.09
Welders	5.58	5.78	--	--	6.25	--	--	--	6.30	5.00	5.13
Electrical	5.71	6.18	5.00	3.50	6.93	4.56	6.08	8.18	5.26	5.77	5.20
Painting	5.78	7.27	7.00	--	4.35	4.88	4.00	5.00	5.00	7.00	5.00
Excavating, Grading etc.	5.00	4.50	--	--	--	6.00	--	7.00	--	--	7.00
Construction NEC	5.31	5.82	4.75	5.36	7.33	5.78	4.05	5.05	7.59	4.33	5.16
Structural Occupations NEC	4.37	4.77	3.50	--	5.00	4.50	3.90	5.50	5.46	3.96	4.28

Average Pay by Occupational Category
Massachusetts Job Banks
March 1981
(continued)

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill 1/	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Miscellaneous 3/	$ 4.38	$ 4.16	$ 3.45	$ 3.96	$ 4.06	$ 4.19	$ 3.73	$ 4.38	$ 4.91	$ 4.11	$ 4.47
Motor Freight	4.78	5.06	--	3.96	4.04	5.75	3.35	3.75	--	4.57	5.48
Transportation Occup. NEC	4.41	4.21	--	--	--	--	3.73	3.35	3.50	3.65	5.18
Packaging, Materials Handling	4.00	3.87	3.45	3.68	4.07	4.15	3.71	5.08	4.16	4.01	4.16
Prod. Distrib. of Utilities	7.11	8.34	--	8.17	--	--	--	5.62	7.78	5.79	4.50
Graphic Art Work	4.27	5.06	--	--	4.00	--	4.38	--	4.01	4.68	4.14
Other	5.75	--	--	--	--	4.00	3.75	--	--	--	8.50

1/ Lawrence/Haverhill data for February

2/ Average yearly salary

3/ Average Hourly pay

Source: Job Bank - March 1981

NEC: Not elsewhere classified

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill*	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
TOTAL - ALL OCCUPATIONS	7,510	2,514	157	222	550	290	250	158	680	842	2,083
Professional, Technical, Managerial	992	457	8	7	43	38	32	25	150	103	146
Architect & Engineering	220	63	--	2	3	22	7	4	29	9	27
Math. & Physical Science	65	34	1	--	2	7	1	--	4	--	15
Life & Social Sciences	30	14	1	1	1	1	--	2	6	4	1
Medicine & Health	148	41	1	--	1	3	2	3	54	11	33
Education	44	18	--	1	12	--	1	--	18	2	4
Museum, Library	13	5	--	--	--	--	6	--	1	--	1
Law, Jurisprudence	4	3	--	--	--	--	--	--	--	1	--
Writing	10	3	1	--	--	--	--	--	3	--	2
Art	3	--	--	--	1	--	--	--	2	--	1
Entertainment	2	--	--	--	--	--	--	--	1	--	--
Administrative Spec.	121	63	--	--	14	4	7	3	7	18	11
Managers	266	164	4	1	11	1	5	11	18	15	45
Miscellaneous, Prof., Tech., Mgr.	62	10	--	2	4	--	2	2	7	34	5
Clerical Sales	2,131	938	34	29	123	53	35	17	81	249	629
Stenography, Typing & Related	699	417	9	8	43	27	11	4	35	39	122
Computing Acc't, Recor.	440	240	11	12	18	4	12	5	24	31	87
Prod. & Stock Clerk	129	36	--	4	35	8	2	--	2	15	48
Information Distr.	81	47	6	1	4	--	2	2	3	4	11
Misc. Clerical	49	25	--	2	2	--	--	--	3	9	6
Salespersons Services	29	3	2	2	1	--	--	2	5	4	19
Miscellaneous Sales	704	82	6	--	20	11	8	4	9	147	336

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill*	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Service	1,399	320	16	22	68	60	27	20	200	166	492
Domestic Service	84	57	--	--	5	8	0	13	4	7	16
Food & Beverage Preparation	273	98	2	6	21	--	6	--	18	19	99
Protective Services	442	59	9	6	8	44	9	--	51	80	133
Building & Related	129	46	1	--	14	6	10	1	11	22	21
Other Service Occupations	471	60	4	10	20	2	--	6	116	31	223
Farming, Fishing, Forestry	209	38	5	--	2	--	11	0	45	26	69
Plant Farming	104	36	5	--	2	--	11	--	22	--	29
Animal Farming	5	1	--	--	--	--	--	--	--	1	2
Forestry	100	1	--	--	--	--	--	--	23	25	38
Processing	246	33	18	47	20	1	9	4	30	17	67
Ore Refining, Foundry	22	--	3	--	1	--	--	2	2	2	11
Food, Tobacco	32	10	--	3	1	--	--	2	2	1	11
Paper	1	--	--	--	--	--	--	--	--	1	--
Chemicals, Plastics, Synthetics	141	11	14	39	7	--	3	--	24	12	27
Stone, Clay, Glass	3	--	1	--	--	--	--	--	--	--	3
Leather & Textiles	23	2	--	5	10	--	6	--	2	1	3
Processing Occupations NEC	24	10	--	--	1	1	--	--	--	--	13

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill*	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Machine Trades	602	138	17	34	67	24	34	31	41	69	184
Metal Machining	149	46	8	4	7	4	3	2	20	23	35
Metal Working NEC	80	19	--	--	24	3	--	--	1	11	36
Mechanics & Repair	150	43	3	6	8	14	9	4	9	18	41
Printing & Paperworking	33	4	--	--	9	--	2	7	7	3	5
Wood Machining	54	17	--	--	2	--	--	2	--	2	33
Textiles	51	3	6	7	6	--	20	1	--	9	3
Machine Trades NEC	85	6	--	17	11	3	--	15	4	3	31
Benchwork	702	158	45	27	72	47	66	36	63	60	176
Metal Products	131	64	--	4	1	--	6	--	3	7	47
Scientific & Electrical Equipment	242	45	--	1	24	33	54	25	31	6	39
Plastics, Synthetic Rubber	10	2	--	2	4	--	--	1	--	--	2
Stone & Wood Products	20	4	--	--	2	--	--	1	--	--	12
Textile, Leather	249	40	45	12	34	8	5	9	24	40	55
Benchwork Occupations	50	5	--	8	11	6	1	--	5	7	23
Structural	605	241	10	17	42	34	15	17	38	50	157
Metal Fabrication	125	77	3	5	12	13	1	2	4	2	16
Welders	69	23	--	--	9	--	--	0	10	2	29
Electrical	76	34	1	1	4	4	3	1	12	6	13

Job Bank Openings
by Occupational Category
March 1981

	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill*	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
Structural (continued)											
Painting	33	10	1	--	5	8	2	4	1	3	2
Excavating, Grading etc.	25	20	--	--	--	1	--	1	--	--	2
Construction NEC	243	72	4	11	9	6	5	8	8	30	84
Structural Occupations NEC	34	5	1	--	3	2	4	1	3	7	11
Miscellaneous	624	191	4	39	113	33	21	8	32	102	163
Motor Freight Occupations	76	32	--	7	13	1	1	2	--	14	13
Transportation Occupations	70	30	--	--	--	--	10	2	1	3	24
Packing, Material Handling	439	126	4	30	99	30	8	3	20	82	111
Production Distribution of Utilities	14	1	--	2	--	--	--	1	7	1	2
Graphic Art Work	20	2	--	--	1	--	1	--	4	2	11
Other	5	--	--	--	--	2	1	--	--	--	2

* Lawrence/Haverhill data for February

Source: Job Bank - March 1981

NEC: Not elsewhere classified

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